November 3, 2022; Updated December 13, 2022

New Mexico Oil Conservation Division
1220 South St, Francis Drive
Santa Fe, NM 87505

Re: Closure Report
Serrano
Goodnight Midstream Permian, LLC
Incident #: nAPP2226738084
Site Location: Unit C, S28, T23S, R35E
(Lat 32.27938109°, Long -103.37313904°)
Lea County, New Mexico

To whom it may concern:

On behalf of Goodnight Midstream Permian, LLC (Goodnight), Earth Systems Response & Restoration (ESRR) has prepared this letter to document the Serrano (site) release assessment and remediation activities. The site is located at 32.27938109°, -103.37313904° within Unit C, S28, T23S, R35E, in Lea County, New Mexico.

Background

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the release was discovered on September 23, 2022, due to a four-inch nozzle failure. It resulted in approximately one thousand five hundred (1,500) barrels of produced water spilling into the interior of the lined containment with one thousand four hundred ninety (1,490) barrels of produced water recovered. Ten (10) barrels of produced water was released to the caliche pad surrounding the lined containment and was not recovered. The impacted area on the caliche pad measured approximately 170 feet (ft) long by 5 to 35 ft wide with a total square footage of approximately 4,075 square (sq.) ft.

Site Characterization

Based on a review of the New Mexico Office of State Engineers and United States Geological Survey (USGS) databases, the site is located in a low karst potential area and there are no known water features within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.17 miles northwest of the site in S28, T23S, R35E. The monitoring well has a reported depth to groundwater of 479.49 feet (ft) below ground surface (bgs) in 2018.

Regulatory Criteria

The following criteria were utilized in assessing and remediating the site per client request and in accordance with the NMOCD Regulatory Standards established in 19.15.29.12 NMAC.

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbons (TPH): 2,500 mg/kg (GRO + DRO + ORO)
- TPH: 1,000 mg/kg (GRO + DRO)
- Chloride: 20,000 mg/kg

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Site Assessment

On September 29, 2022, ESRR conducted site assessment activities to assess and delineate soil impacts resulting from the release. A total of nine (9) delineation soil borings were advanced to collect twelve (12) soil samples from depths ranging from surface to 1 ft. bgs within and surrounding the release area to assess potential impacts vertically and horizontally. The collected soil samples were placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas. The soil samples were analyzed for TPH by EPA method 8015 Modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. The laboratory reports containing analytical methods, results, and chain-of custody documents are attached.

On December 9, 2022, per NMOCD instruction, ESRR conducted additional soil sampling activities to laterally delineate the extents of the release. A total of six (6) soil borings were advanced approximately 10 ft. further away laterally from the original perimeter soil borings to collect (6) soil samples from a depth of 0 - 0.5 ft. bgs to assess potential impacts. The collected soil samples were placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas. The soil samples were analyzed for chloride by EPA method 300.0.

The soil sample laboratory analytical results from the site assessment are provided in Table 1. Additionally, copies of laboratory analysis and chain-of-custody documentation are attached. See Figure 2 for delineation soil sample locations.

Remediation Activities and Confirmation Sampling

ESRR was onsite October 8 – 26, 2022 performing soil remediation activities. Prior to commencing excavation activities, a hydrovac truck was utilized to uncover known buried utility lines which were then hand spotted within the planned excavation perimeter of the caliche pad. The impacted soils were excavated utilizing a backhoe to depth of 0.5 ft. bgs. Upon excavation, the excavated soils were stockpiled onsite to await transport to the Northern Delaware Basin Landfill (NDBL), a state regulated disposal facility. Approximately 160 cubic yards of impacted material was excavated and transported offsite via dump truck for proper disposal. on October 11, 2022, subsequent to excavation activities, confirmation samples were collected from within the excavation. A total of ten (10) confirmation samples were collected (CS-1 through CS-10) to ensure removal of the impacted soils. All collected samples were analyzed for TPH analysis by EPA method 8015 Modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0.

laboratory analytical data suggests soils exceeding NMOCD regulatory criteria are not present and no additional excavation is required. Subsequent to laboratory analytical data review, the excavated area was backfilled with clean landowner approved caliche material and leveled to the surrounding grade surface

The confirmation soil sample analytical results are provided in Table 2. Additionally, copies of laboratory analysis and chain-of-custody documentation are attached. See Figures 3 for confirmation soil sample locations.

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Conclusions

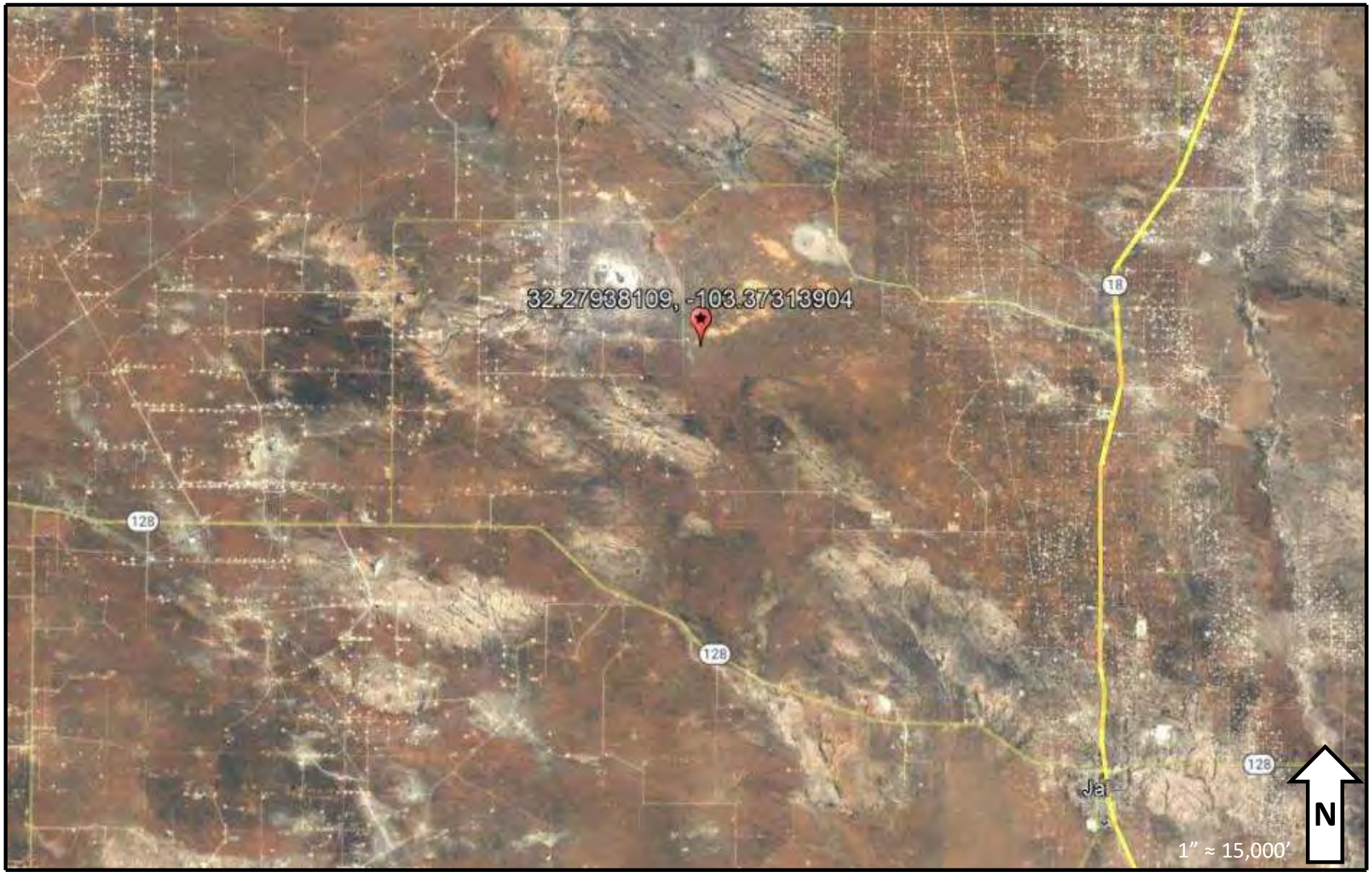
Based on the assessment findings, onsite remediation activities, and laboratory analytical results, no further actions are required at the site. The final C-141 is attached and Goodnight Midstream, LLC formally requests closure of the release. If you have any questions regarding this report or need additional information, please contact us at 432-813-1605.

Sincerely,

Mason Jones
Operations Manager – Midland

K. Williams
Kris Williams, CHMM, REM
Operations Manager - Texas

Attached:
Figure 1 – Site Location Map
Figure 2 – Delineation Soil Sample Locations and Site Map – 7/28/2022 and 12/09/2022
Figure 3 – Confirmation Soil Sample Locations and Site Map – 8/11/2022
Table 1 - Summary of Delineation Soil Analytical Data
Table 2 - Summary of Confirmation Soil Analytical Data
Photographic Log
Groundwater Research
Laboratory Analytical Reports
NMOCD Correspondence Email
C-141



Earth Systems
Response & Restoration

Figure 1 - Site Location Map

Serrano – Goodnight Midstream, LLC
GPS: 32.27938109, -103.37313904
Lea County, New Mexico

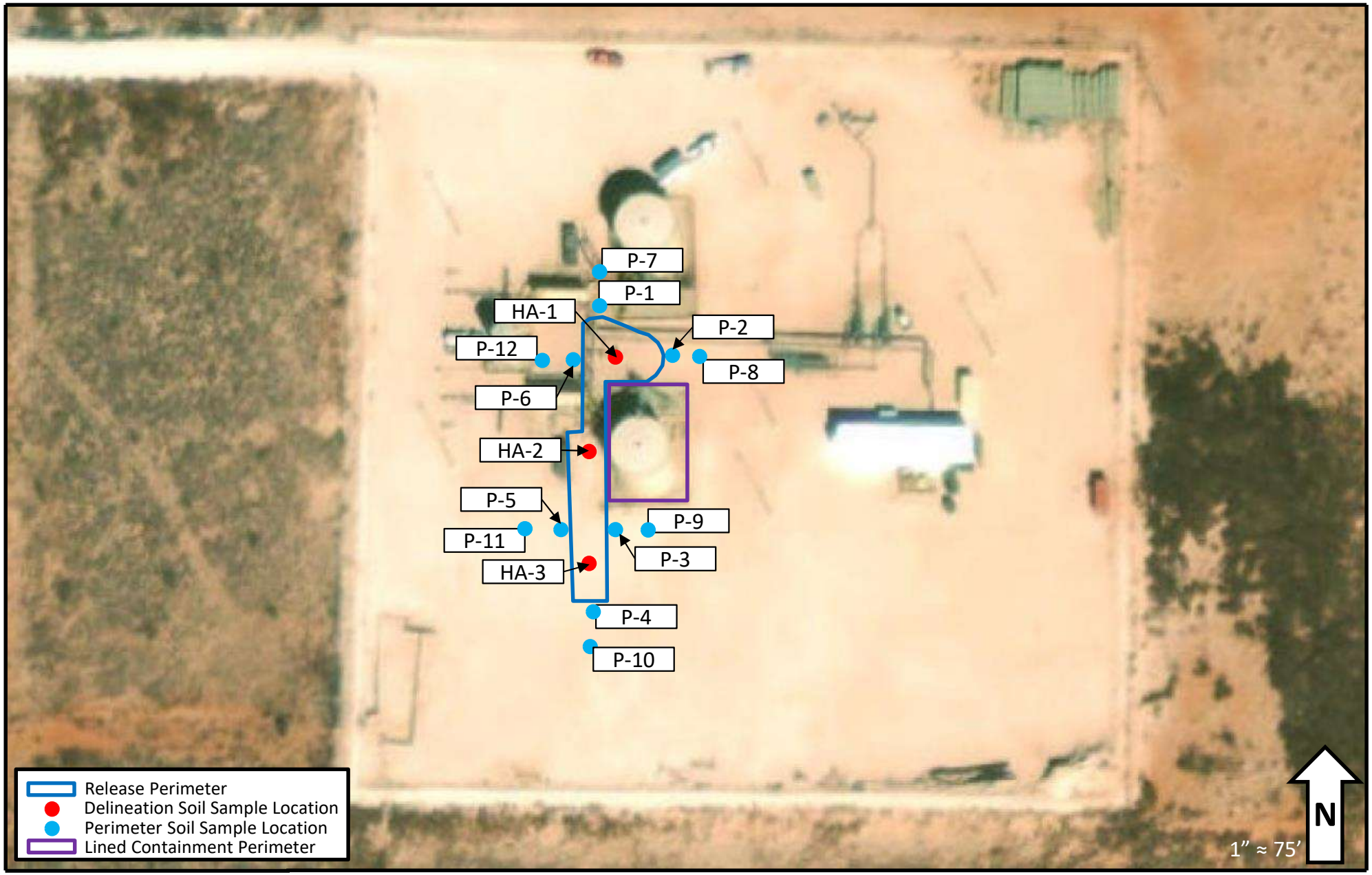


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Figure 2 - Delineation Soil Sample Locations and Site Map

Serrano – Goodnight Midstream, LLC
GPS: 32.27938109, -103.37313904
Lea County, New Mexico

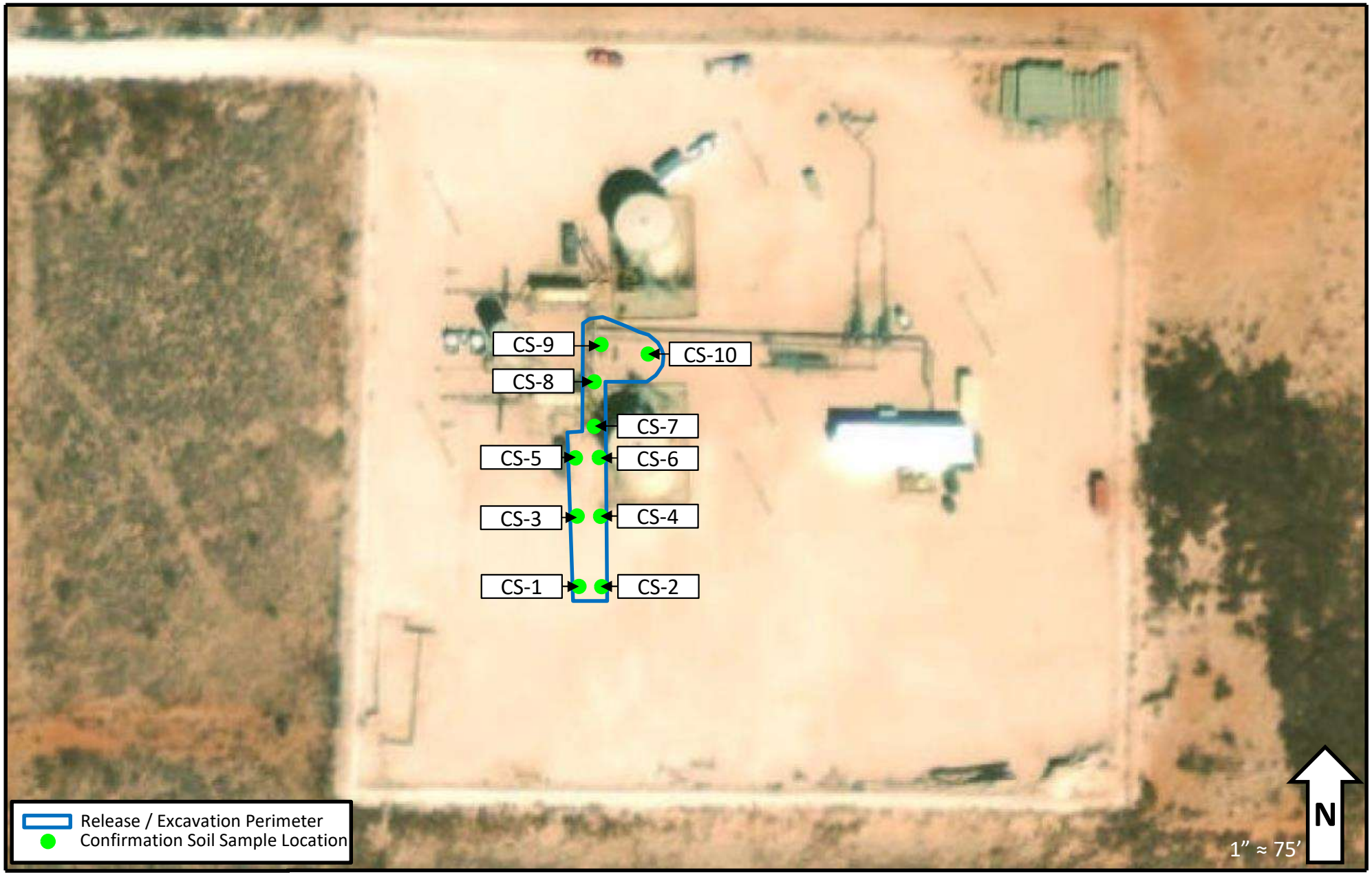

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Figure 3 - Confirmation Soil Sample Locations and Site Map

Serrano – Goodnight Midstream, LLC
GPS: 32.27938109, -103.37313904
Lea County, New Mexico

Table 1 - Summary of Delineation Soil Analytical Data
Serrano - Goodnight Midstream, LLC
32.27938109, -103.37313904
Lea County, New Mexico

			TPH (mg/kg)				Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chloride
			GRO	DRO	MRO	Total TPH	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
		Regulatory Standards: [1]	**1,000 mg/kg**			**2,500 mg/kg**	**10 mg/kg**				**50 mg/kg**	**20,000 mg/kg**
Sample ID	**Sample Date**	**Sample Depth (ft)**										
HA-1	9/29/2022	0 - 0.5	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	8,140
		0.5 - 1	<49.9	<49.9	<49.9	<49.9	0.00948	0.0107	0.00621	0.0415	0.0679	324
HA-2	9/29/2022	0 - 0.5	<50.0	1760	240	2000	<0.00199	<0.00199	<0.00199	0.0201	0.0201	5,770
		0.5 - 1	<49.9	<49.9	<49.9	<49.9	<0.00199	0.0140	<0.00199	<0.00398	0.0140	2,120
HA-3	9/29/2022	0 - 0.5	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	3,620
		0.5 - 1	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	3,810
P-1	9/29/2022	0 - 0.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	8,100
P-2	9/29/2022	0 - 0.5	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	1,090
P-3	9/29/2022	0 - 0.5	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	193
P-4	9/29/2022	0 - 0.5	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	3,490
P-5	9/29/2022	0 - 0.5	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	3,010
P-6	9/29/2022	0 - 0.5	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	5,780
P-7	12/9/2022	0 - 0.5	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	121
P-8	12/9/2022	0 - 0.5	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	53.3
P-9	12/9/2022	0 - 0.5	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	393
P-10	12/9/2022	0 - 0.5	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	293
P-11	12/9/2022	0 - 0.5	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	35.6
P-12	12/9/2022	0 - 0.5	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	212

Bold and highlighted denotes concentrations that exceeds NMOCD Regulatory Standards established in 19.15.29 NMAC
TPH - Total Petroleum Hydrocarbons
ft - feet
mg/kg - milligram per kilogram
[1] - Established in 19.15.29 NMAC

Table 2 - Summary of Confirmation Soil Analytical Data
Serrano - Goodnight Midstream, LLC
32.27938109, -103.37313904
Lea County, New Mexico

			TPH (mg/kg)				Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chloride
			GRO	DRO	MRO	Total TPH	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
		Regulatory Limits: [1]	**1,000 mg/kg**			**2,500 mg/kg**	**10 mg/kg**				**50 mg/kg**	**20,000 mg/kg**
Sample ID	**Sample Date**	**Sample Depth (ft)**										
CS-1	10/11/2022	0.5 - 1	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	15.4
CS-2	10/11/2022	0.5 - 1	<50	<50	<50	<50	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	763
CS-3	10/11/2022	0.5 - 1	<50	<50	<50	<50	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	134
CS-4	10/11/2022	0.5 - 1	<50	<50	<50	<50	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	96.8
CS-5	10/11/2022	0.5 - 1	<50	<50	<50	<50	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	338
CS-6	10/11/2022	0.5 - 1	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	662
CS-7	10/11/2022	0.5 - 1	<50	53.2	<50	53.2	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	3,180
CS-8	10/11/2022	0.5 - 1	<50	<50	<50	<50	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	2,640
CS-9	10/11/2022	0.5 - 1	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.0019	<0.00398	<0.00398	2,240
CS-10	10/11/2022	0.5 - 1	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,500

Bold and highlighted denotes concentrations that exceeds NMOCD Regulatory Standards established in 19.15.29 NMAC

TPH - Total Petroleum Hydrocarbons

ft - feet

mg/kg - milligram per kilogram

[1] - Established in 19.15.29 NMAC

Serrano
Goodnight Midstream, LLC
Incident #: nAPP2226738084

PHOTO 1: View of the impacted area facing north. 9/29/22

PHOTO 2: View of the impacted area facing north. 9/29/22

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Goodnight Midstream, LLC
Incident #: nAPP2226738084

PHOTO 3: View of the impacted area facing north. 9/29/22

PHOTO 4: View of the impacted area facing southwest. 9/29/22

Serrano
Goodnight Midstream, LLC
Incident #: nAPP2226738084

PHOTO 5: View of the excavated area facing southwest. 9/29/22

PHOTO 6: View of the excavated area facing southwest. 9/29/22

Serrano
Goodnight Midstream, LLC
Incident #: nAPP2226738084

PHOTO 7: View of the remediated area facing southwest. 10/27/22

PHOTO 8: View of the remediated area facing southwest. 10/27/22

Serrano
Goodnight Midstream, LLC
Incident #: nAPP2226738084

PHOTO 9: View of the remediated area facing southwest. 10/27/22

PHOTO 10: View of the remediated area facing southwest. 10/27/22

Groundwater Research

Depth to Groundwater and Water Bodies Map

NMOSE Average Depth to Water

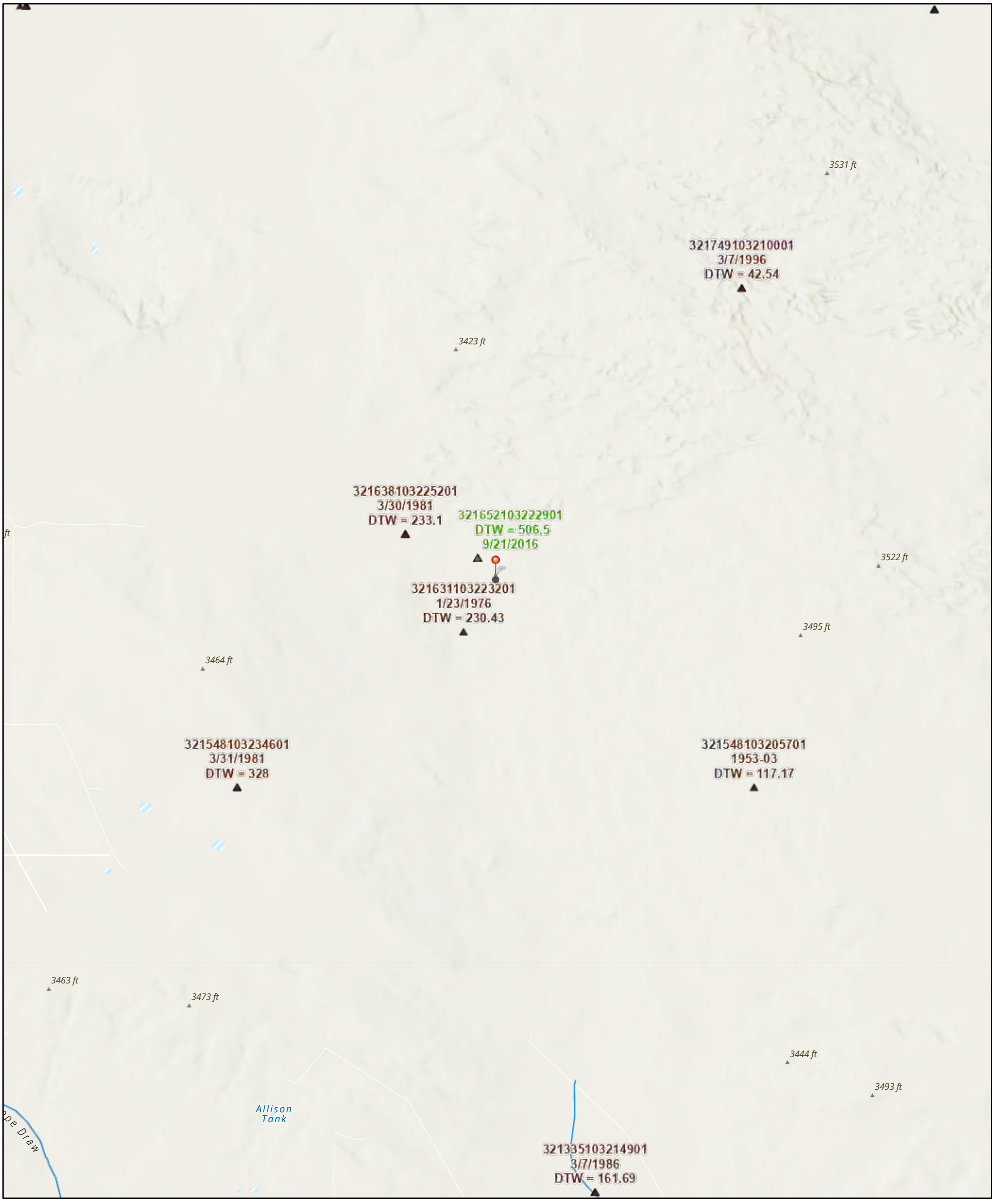
Depth to Groundwater Radius Map

USGS National Water Information System

Karst Potential Map

New Mexico NFHL Data

Water Well and Water Body Locations Map



11/3/2022, 1:59:28 PM

Serrano (Site Location)

USGS Historical GW Wells USGS

Active Monitoring GW Wells OSE

Streams

1:36,112

0 0.35 0.7 1.4 mi

0 0.5 1 2 km

Esri, NASA, NGA, USGS, FEMA, USGS, NM OSE, New Mexico State University, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 01100 POD2	CP	LE		2	1	28	23S	35E	652995	3572726	267	750	125	625
CP 01100 POD3	CP	LE	3	2	1	28	23S	35E	652987	3572726	273	950	730	220
CP 01099 POD2	CP	LE	3	3	3	21	23S	35E	652968	3572750	303	750	120	630

Average Depth to Water: **325 feet**

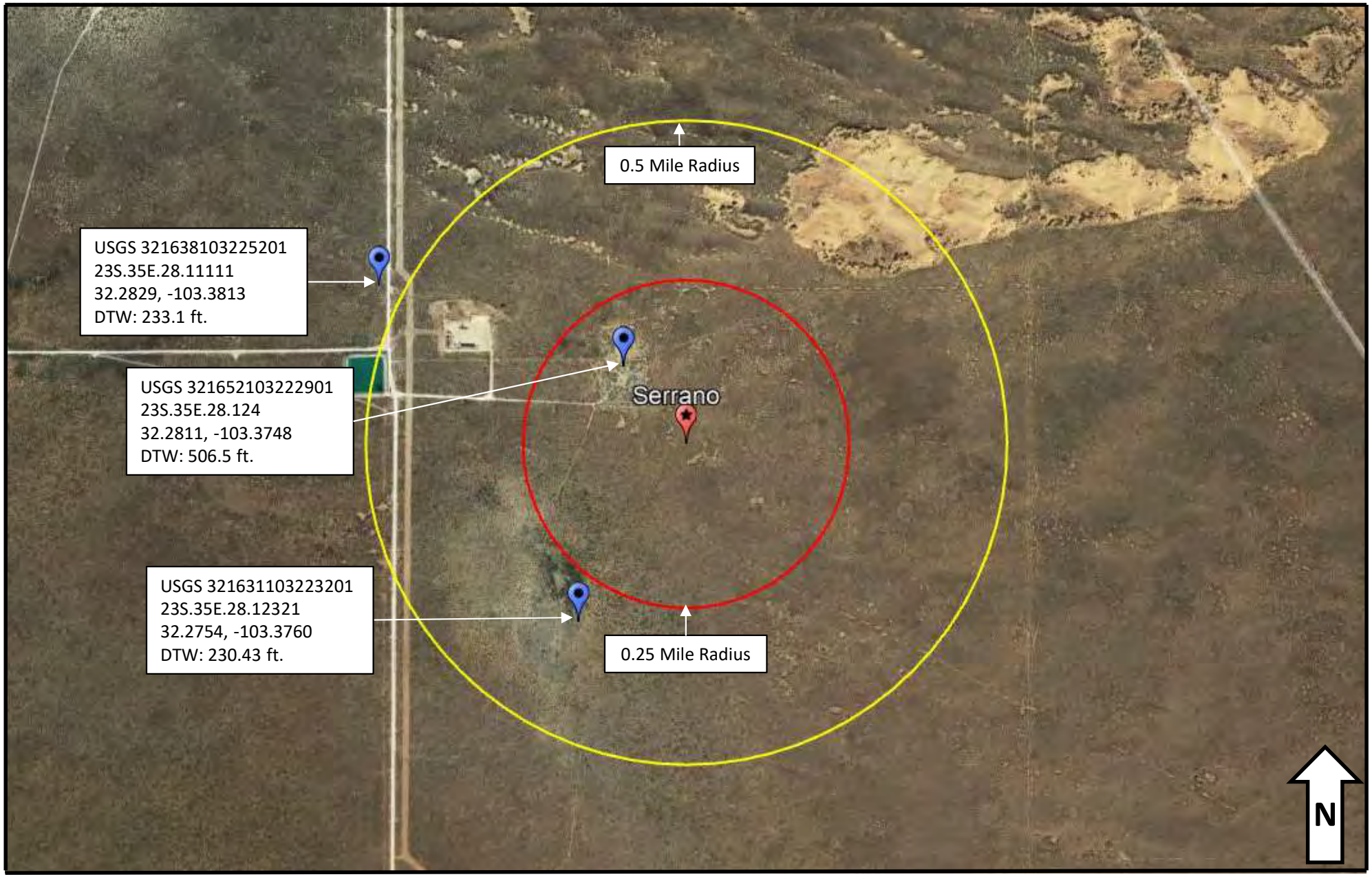
Minimum Depth: **120 feet**

Maximum Depth: **730 feet**

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 653207.712 **Northing (Y):** 3572564.873 **Radius:** 400



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Depth to Groundwater Radius Map

Serrano – Goodnight Midstream, LLC
GPS: 32.27938109, -103.37313904
Lea County, New Mexico

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USGS Water Resources

Data Category: Groundwater | Geographic Area: New Mexico | GO

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- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 321652103222901

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321652103222901 23S.35E.28.124

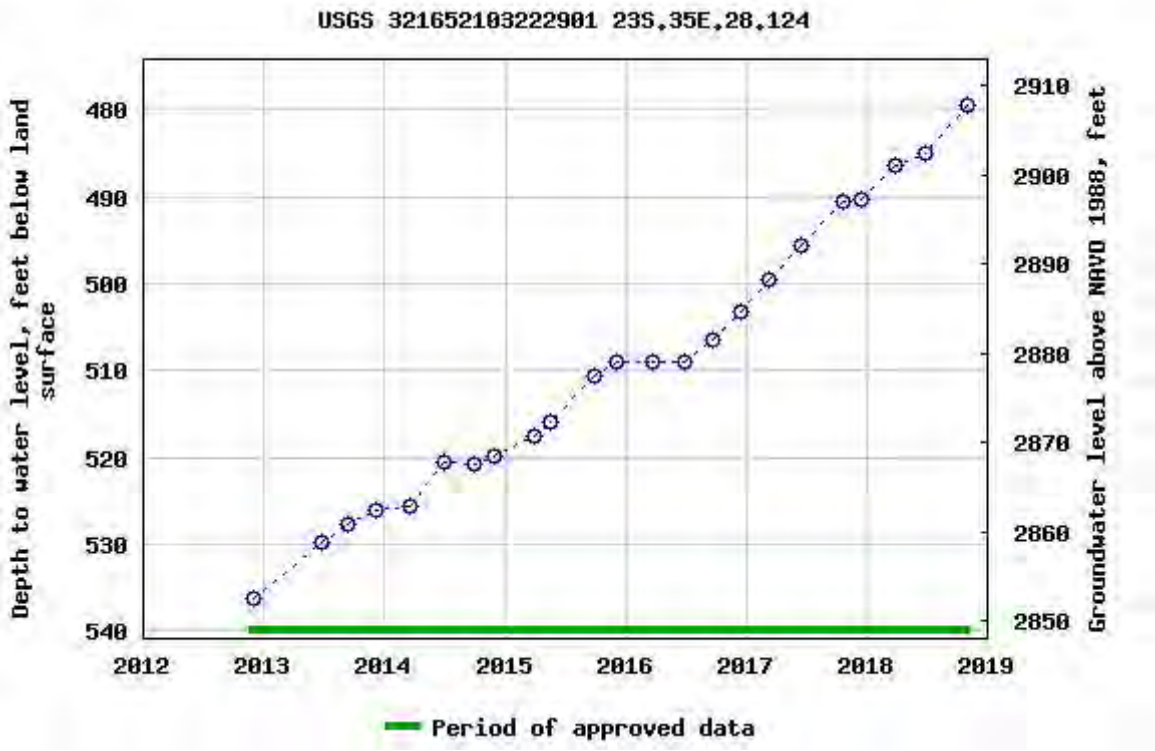
Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°16'51.8", Longitude 103°22'29.1" NAD83
Land-surface elevation 3,388 feet above NAVD88
The depth of the well is 5,300 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.

Output formats

Table of data
Tab-separated data
Graph of data

Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
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Page Contact Information: New Mexico Water Data Maintainer
Page Last Modified: 2022-11-03 15:23:01 EDT
0.55 0.47 nadww01

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USGS Water Resources

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site_no list =

- 321631103223201

Minimum number of levels = 1

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USGS 321631103223201 23S.35E.28.12321

Available data for this site | Groundwater: Field measurements | GO

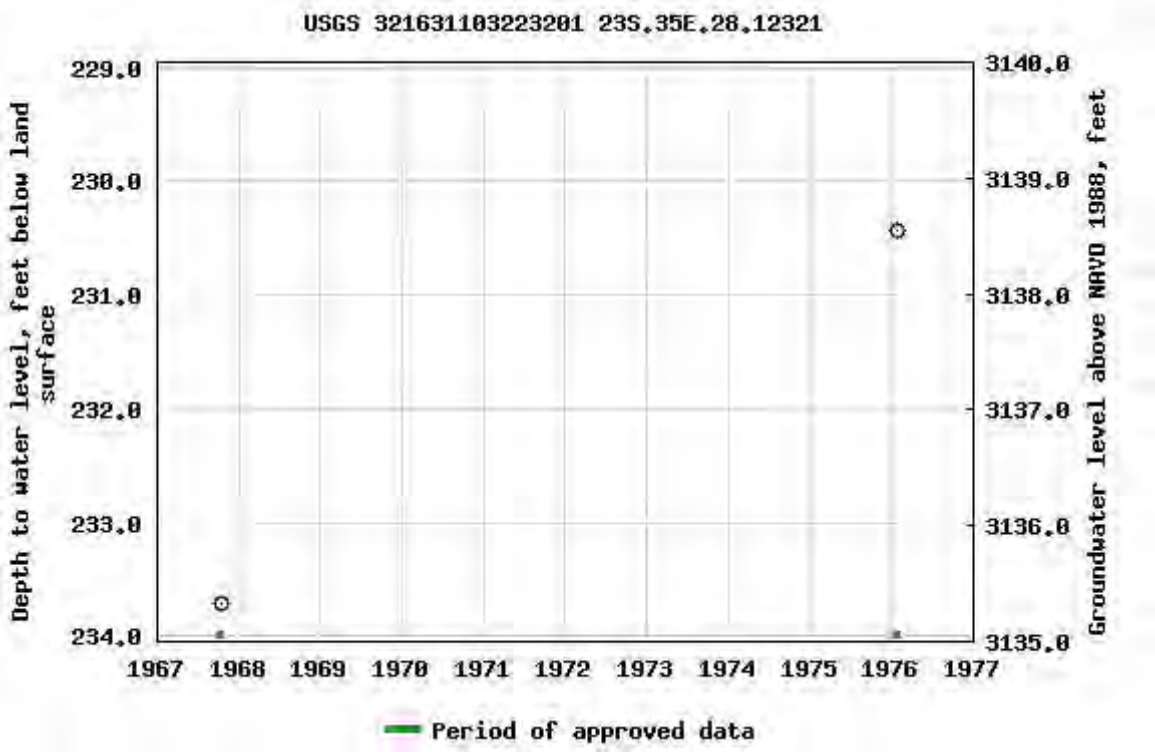
Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°16'31", Longitude 103°22'32" NAD27
Land-surface elevation 3,369 feet above NAVD88
The depth of the well is 242 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data

Graph of data

Reselect period



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0.59 0.52 nadww01

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Search Results -- 1 sites found

site_no list =
- 321638103225201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321638103225201 23S.35E.28.11111

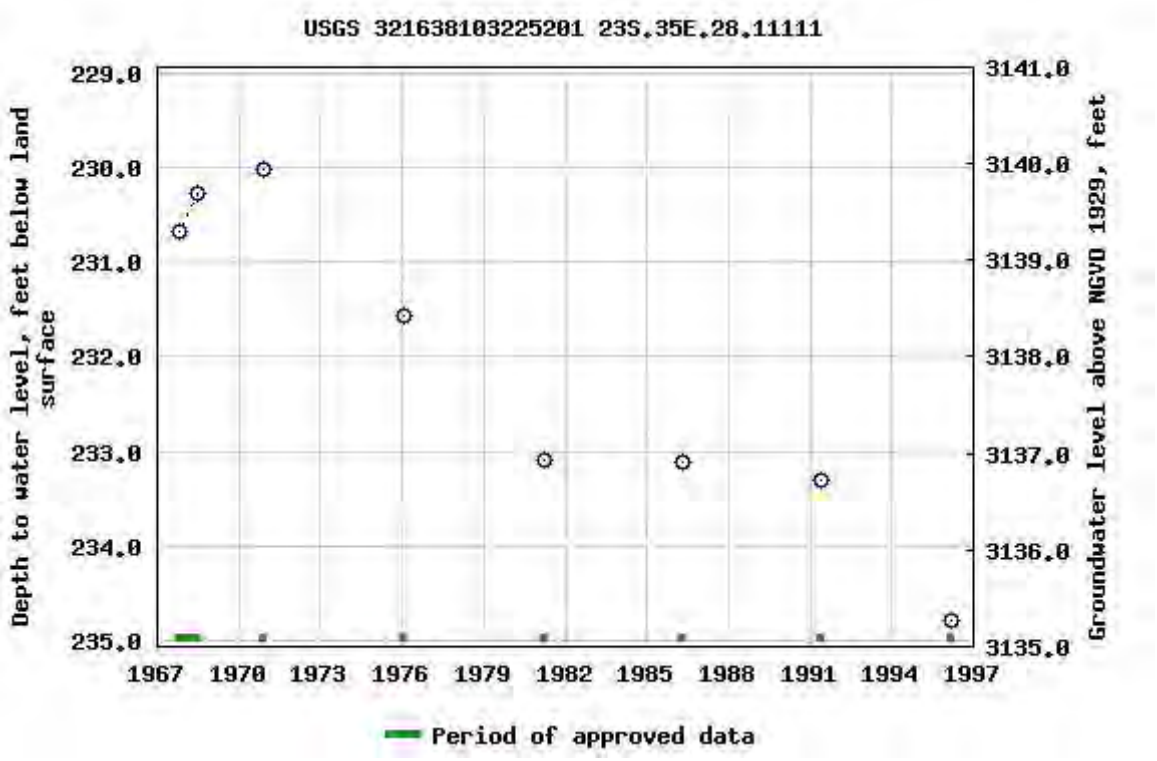
Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°16'58", Longitude 103°22'51" NAD27
Land-surface elevation 3,370.00 feet above NGVD29
The depth of the well is 795 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data

Reselect period



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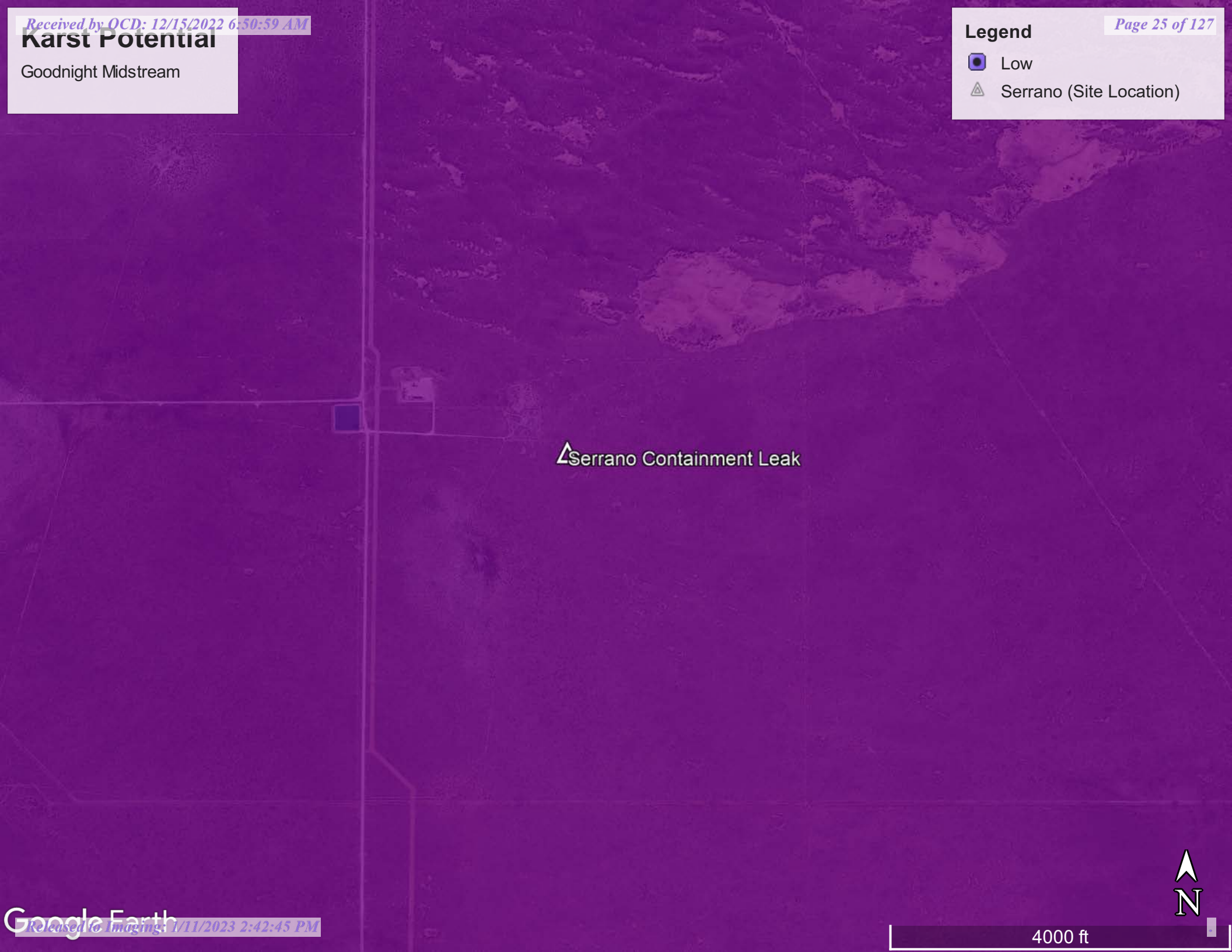
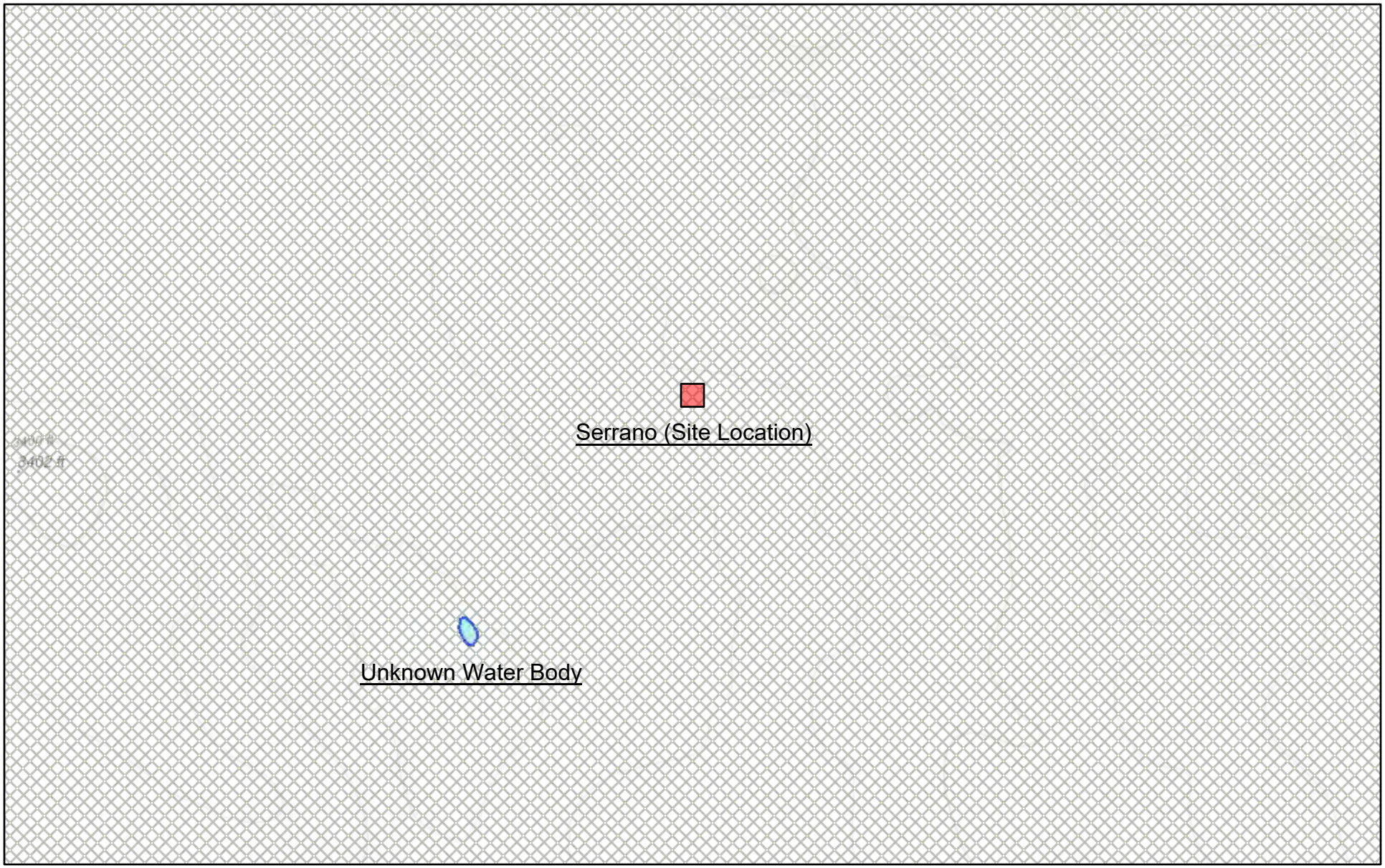
Karst Potential

Goodnight Midstream



New Mexico NFHL Data



November 3, 2022

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

FEMA, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

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eurofins | Environment Testing America

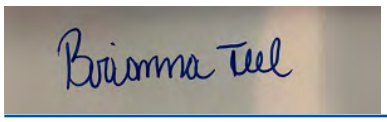
ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-19821-1
Laboratory Sample Delivery Group: Eunice,NM
Client Project/Site: Serrano Containment Leak

For:
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Attn: Kris Williams



Authorized for release by:
10/10/2022 9:58:48 AM

Brianna Teel, Project Manager
(432)704-5440
Brianna.Teel@et.eurofinsus.com

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Laboratory Job ID: 880-19821-1
SDG: Eunice,NM

Table of Contents

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Job ID: 880-19821-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-19821-1

Receipt
The samples were received on 9/29/2022 2:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-36451 and analytical batch 880-36469 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: Surrogate recovery for the following samples were outside control limits: HA-1 (0.5-1) (880-19821-2) and HA-2 (0.5-1) (880-19821-4). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-35683 and analytical batch 880-36005 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Client Sample ID: HA-1 (0-0.5)

Lab Sample ID: 880-19821-1
Matrix: Solid
Date Collected: 09/29/22 11:00
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		10/08/22 13:34	10/10/22 02:33	1
Toluene	<0.00202	U	0.00202		mg/Kg		10/08/22 13:34	10/10/22 02:33	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		10/08/22 13:34	10/10/22 02:33	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		10/08/22 13:34	10/10/22 02:33	1
o-Xylene	<0.00202	U *+	0.00202		mg/Kg		10/08/22 13:34	10/10/22 02:33	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		10/08/22 13:34	10/10/22 02:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*10/08/22 13:34*	*10/10/22 02:33*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*10/08/22 13:34*	*10/10/22 02:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			10/03/22 11:47	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 15:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 15:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*09/30/22 15:02*	*10/01/22 15:49*	*1*
o-Terphenyl	*94*		*70 - 130*	*09/30/22 15:02*	*10/01/22 15:49*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8140**		100		mg/Kg			10/03/22 23:07	20

Client Sample ID: HA-1 (0.5-1)

Lab Sample ID: 880-19821-2
Matrix: Solid
Date Collected: 09/29/22 11:02
Date Received: 09/29/22 14:35
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00948**		0.00200		mg/Kg		10/08/22 13:34	10/10/22 02:53	1
Toluene	**0.0107**		0.00200		mg/Kg		10/08/22 13:34	10/10/22 02:53	1
Ethylbenzene	**0.00621**		0.00200		mg/Kg		10/08/22 13:34	10/10/22 02:53	1
m-Xylene & p-Xylene	**0.0206**		0.00399		mg/Kg		10/08/22 13:34	10/10/22 02:53	1
o-Xylene	**0.0209**	*+	0.00200		mg/Kg		10/08/22 13:34	10/10/22 02:53	1
Xylenes, Total	**0.0415**		0.00399		mg/Kg		10/08/22 13:34	10/10/22 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*192*	*S1+*	*70 - 130*	*10/08/22 13:34*	*10/10/22 02:53*	*1*

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Client Sample ID: HA-1 (0.5-1)

Lab Sample ID: 880-19821-2
Matrix: Solid
Date Collected: 09/29/22 11:02
Date Received: 09/29/22 14:35
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*212*	*S1+*	*70 - 130*	*10/08/22 13:34*	*10/10/22 02:53*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0679**		0.00399		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/03/22 11:47	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 16:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 16:11	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*09/30/22 15:02*	*10/01/22 16:11*	*1*
o-Terphenyl	*80*		*70 - 130*	*09/30/22 15:02*	*10/01/22 16:11*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**324**		5.03		mg/Kg			10/03/22 23:22	1

Client Sample ID: HA-2 (0-0.5)

Lab Sample ID: 880-19821-3
Matrix: Solid
Date Collected: 09/29/22 11:05
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 03:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 03:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 03:14	1
m-Xylene & p-Xylene	**0.0120**		0.00398		mg/Kg		10/08/22 13:34	10/10/22 03:14	1
o-Xylene	**0.00806**	*+	0.00199		mg/Kg		10/08/22 13:34	10/10/22 03:14	1
Xylenes, Total	**0.0201**		0.00398		mg/Kg		10/08/22 13:34	10/10/22 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*10/08/22 13:34*	*10/10/22 03:14*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*10/08/22 13:34*	*10/10/22 03:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0201**		0.00398		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**2000**		50.0		mg/Kg			10/03/22 11:47	1

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Client Sample ID: HA-2 (0-0.5)

Lab Sample ID: 880-19821-3
Matrix: Solid
Date Collected: 09/29/22 11:05
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 16:32	1
Diesel Range Organics (Over C10-C28)	**1760**		50.0		mg/Kg		09/30/22 15:02	10/01/22 16:32	1
OII Range Organics (Over C28-C36)	**240**		50.0		mg/Kg		09/30/22 15:02	10/01/22 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*09/30/22 15:02*	*10/01/22 16:32*	*1*
o-Terphenyl	*109*		*70 - 130*	*09/30/22 15:02*	*10/01/22 16:32*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5770**		50.3		mg/Kg			10/03/22 23:26	10

Client Sample ID: HA-2 (0.5-1)

Lab Sample ID: 880-19821-4
Matrix: Solid
Date Collected: 09/29/22 11:07
Date Received: 09/29/22 14:35
Sample Depth: 0.5 - 10

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 03:34	1
Toluene	**0.0140**		0.00199		mg/Kg		10/08/22 13:34	10/10/22 03:34	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 03:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/08/22 13:34	10/10/22 03:34	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		10/08/22 13:34	10/10/22 03:34	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/08/22 13:34	10/10/22 03:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*145*	*S1+*	*70 - 130*	*10/08/22 13:34*	*10/10/22 03:34*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*10/08/22 13:34*	*10/10/22 03:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0140**		0.00398		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/03/22 11:47	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 16:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 16:54	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*09/30/22 15:02*	*10/01/22 16:54*	*1*
o-Terphenyl	*90*		*70 - 130*	*09/30/22 15:02*	*10/01/22 16:54*	*1*

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Client Sample ID: HA-2 (0.5-1)

Lab Sample ID: 880-19821-4
Matrix: Solid
Date Collected: 09/29/22 11:07
Date Received: 09/29/22 14:35
Sample Depth: 0.5 - 10

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2120**		25.2		mg/Kg			10/03/22 23:31	5

Client Sample ID: HA-3 (0-0.5)

Lab Sample ID: 880-19821-5
Matrix: Solid
Date Collected: 09/29/22 11:10
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/08/22 13:34	10/10/22 04:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/08/22 13:34	10/10/22 04:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/08/22 13:34	10/10/22 04:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/08/22 13:34	10/10/22 04:56	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		10/08/22 13:34	10/10/22 04:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/08/22 13:34	10/10/22 04:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*10/08/22 13:34*	*10/10/22 04:56*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*10/08/22 13:34*	*10/10/22 04:56*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			10/03/22 11:47	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 17:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 17:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*09/30/22 15:02*	*10/01/22 17:37*	*1*
o-Terphenyl	*90*		*70 - 130*	*09/30/22 15:02*	*10/01/22 17:37*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3620**		25.0		mg/Kg			10/03/22 23:36	5

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Client Sample ID: HA-3 (0.5-1)

Date Collected: 09/29/22 11:12
Date Received: 09/29/22 14:35
Sample Depth: 0.5 - 1

Lab Sample ID: 880-19821-6

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 05:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 05:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 05:17	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/08/22 13:34	10/10/22 05:17	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		10/08/22 13:34	10/10/22 05:17	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/08/22 13:34	10/10/22 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*10/08/22 13:34*	*10/10/22 05:17*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*10/08/22 13:34*	*10/10/22 05:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/03/22 11:47	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 17:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 17:58	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*09/30/22 15:02*	*10/01/22 17:58*	*1*
o-Terphenyl	*103*		*70 - 130*	*09/30/22 15:02*	*10/01/22 17:58*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3810**		25.0		mg/Kg			10/03/22 23:41	5

Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-19820-A-1-C MS	Matrix Spike	101	90
880-19820-A-1-D MSD	Matrix Spike Duplicate	119	93
880-19821-1	HA-1 (0-0.5)	79	87
880-19821-2	HA-1 (0.5-1)	192 S1+	212 S1+
880-19821-3	HA-2 (0-0.5)	111	102
880-19821-4	HA-2 (0.5-1)	145 S1+	87
880-19821-5	HA-3 (0-0.5)	82	92
880-19821-6	HA-3 (0.5-1)	93	97
LCS 880-36451/1-A	Lab Control Sample	91	106
LCSD 880-36451/2-A	Lab Control Sample Dup	109	92
MB 880-36451/5-A	Method Blank	84	85
MB 880-36469/8	Method Blank	86	91

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-19821-1	HA-1 (0-0.5)	83	94
880-19821-2	HA-1 (0.5-1)	74	80
880-19821-3	HA-2 (0-0.5)	98	109
880-19821-4	HA-2 (0.5-1)	81	90
880-19821-5	HA-3 (0-0.5)	82	90
880-19821-6	HA-3 (0.5-1)	94	103
880-19827-A-1-E MS	Matrix Spike	75	78
880-19827-A-1-F MSD	Matrix Spike Duplicate	74	76
LCS 880-35829/2-A	Lab Control Sample	114	126
LCSD 880-35829/3-A	Lab Control Sample Dup	95	106
MB 880-35829/1-A	Method Blank	99	114

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36451/5-A
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36451

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/08/22 13:34	10/10/22 00:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*10/08/22 13:34*	*10/10/22 00:08*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*10/08/22 13:34*	*10/10/22 00:08*	*1*

Lab Sample ID: LCS 880-36451/1-A
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36451

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1003		mg/Kg		100	70 - 130		
Toluene			0.100	0.08953		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.08289		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1709		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.09619		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-36451/2-A
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 36451

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09694		mg/Kg		97	70 - 130	3	35
Toluene			0.100	0.1039		mg/Kg		104	70 - 130	15	35
Ethylbenzene			0.100	0.1059		mg/Kg		106	70 - 130	24	35
m-Xylene & p-Xylene			0.200	0.2337		mg/Kg		117	70 - 130	31	35
o-Xylene			0.100	0.1348	*+	mg/Kg		135	70 - 130	33	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 880-19820-A-1-C MS
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 36451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0998	0.08905		mg/Kg		89	70 - 130		
Toluene	<0.00201	U	0.0998	0.08146		mg/Kg		81	70 - 130		

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-19820-A-1-C MS
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 36451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0998	0.08404		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1659		mg/Kg		83	70 - 130
o-Xylene	<0.00201	U *+	0.0998	0.09154		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 880-19820-A-1-D MSD
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 36451

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.07472		mg/Kg		75	70 - 130	18	35
Toluene	<0.00201	U	0.0996	0.08396		mg/Kg		84	70 - 130	3	35
Ethylbenzene	<0.00201	U	0.0996	0.09233		mg/Kg		93	70 - 130	9	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1992		mg/Kg		100	70 - 130	18	35
o-Xylene	<0.00201	U *+	0.0996	0.1100		mg/Kg		110	70 - 130	18	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: MB 880-36469/8
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			10/09/22 13:35	1
Toluene	<0.00200	U	0.00200		mg/Kg			10/09/22 13:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			10/09/22 13:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			10/09/22 13:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			10/09/22 13:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			10/09/22 13:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*10/09/22 13:35*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*		*10/09/22 13:35*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-35829/1-A
Matrix: Solid
Analysis Batch: 35865

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 11:52	1

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-35829/1-A
Matrix: Solid
Analysis Batch: 35865

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 11:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*09/30/22 15:02*	*10/01/22 11:52*	*1*
o-Terphenyl	*114*		*70 - 130*	*09/30/22 15:02*	*10/01/22 11:52*	*1*

Lab Sample ID: LCS 880-35829/2-A
Matrix: Solid
Analysis Batch: 35865

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35829

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	876.7		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1098		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*114*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: LCSD 880-35829/3-A
Matrix: Solid
Analysis Batch: 35865

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35829

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	981.2		mg/Kg		98	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	907.5		mg/Kg		91	70 - 130	19	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*106*		*70 - 130*

Lab Sample ID: 880-19827-A-1-E MS
Matrix: Solid
Analysis Batch: 35865

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 35829

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	993.8		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	850.4		mg/Kg		83	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*75*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-19827-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 35865 — **Prep Batch: 35829**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	979.4		mg/Kg		96	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	836.8		mg/Kg		82	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*
o-Terphenyl	*76*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35683/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 36005

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/03/22 21:25	1

Lab Sample ID: LCS 880-35683/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 36005

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	247.3		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-35683/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 36005

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	268.6		mg/Kg		107	90 - 110	8	20

Lab Sample ID: 880-19770-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 36005

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	17.6	F1	248	231.4	F1	mg/Kg		86	90 - 110

Lab Sample ID: 880-19770-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 36005

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	17.6	F1	248	225.4	F1	mg/Kg		84	90 - 110	3	20

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-19820-A-5-B MS
Matrix: Solid
Analysis Batch: 36005

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	3010		1250	4126		mg/Kg		90	90 - 110		

Lab Sample ID: 880-19820-A-5-C MSD
Matrix: Solid
Analysis Batch: 36005

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3010		1250	4205		mg/Kg		96	90 - 110	2	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

GC VOA

Prep Batch: 36451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19821-1	HA-1 (0-0.5)	Total/NA	Solid	5035	
880-19821-2	HA-1 (0.5-1)	Total/NA	Solid	5035	
880-19821-3	HA-2 (0-0.5)	Total/NA	Solid	5035	
880-19821-4	HA-2 (0.5-1)	Total/NA	Solid	5035	
880-19821-5	HA-3 (0-0.5)	Total/NA	Solid	5035	
880-19821-6	HA-3 (0.5-1)	Total/NA	Solid	5035	
MB 880-36451/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36451/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36451/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19820-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-19820-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19821-1	HA-1 (0-0.5)	Total/NA	Solid	8021B	36451
880-19821-2	HA-1 (0.5-1)	Total/NA	Solid	8021B	36451
880-19821-3	HA-2 (0-0.5)	Total/NA	Solid	8021B	36451
880-19821-4	HA-2 (0.5-1)	Total/NA	Solid	8021B	36451
880-19821-5	HA-3 (0-0.5)	Total/NA	Solid	8021B	36451
880-19821-6	HA-3 (0.5-1)	Total/NA	Solid	8021B	36451
MB 880-36451/5-A	Method Blank	Total/NA	Solid	8021B	36451
MB 880-36469/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-36451/1-A	Lab Control Sample	Total/NA	Solid	8021B	36451
LCSD 880-36451/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36451
880-19820-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	36451
880-19820-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36451

Analysis Batch: 36539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19821-1	HA-1 (0-0.5)	Total/NA	Solid	Total BTEX	
880-19821-2	HA-1 (0.5-1)	Total/NA	Solid	Total BTEX	
880-19821-3	HA-2 (0-0.5)	Total/NA	Solid	Total BTEX	
880-19821-4	HA-2 (0.5-1)	Total/NA	Solid	Total BTEX	
880-19821-5	HA-3 (0-0.5)	Total/NA	Solid	Total BTEX	
880-19821-6	HA-3 (0.5-1)	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 35829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19821-1	HA-1 (0-0.5)	Total/NA	Solid	8015NM Prep	
880-19821-2	HA-1 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-19821-3	HA-2 (0-0.5)	Total/NA	Solid	8015NM Prep	
880-19821-4	HA-2 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-19821-5	HA-3 (0-0.5)	Total/NA	Solid	8015NM Prep	
880-19821-6	HA-3 (0.5-1)	Total/NA	Solid	8015NM Prep	
MB 880-35829/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35829/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35829/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19827-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19827-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

GC Semi VOA

Analysis Batch: 35865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19821-1	HA-1 (0-0.5)	Total/NA	Solid	8015B NM	35829
880-19821-2	HA-1 (0.5-1)	Total/NA	Solid	8015B NM	35829
880-19821-3	HA-2 (0-0.5)	Total/NA	Solid	8015B NM	35829
880-19821-4	HA-2 (0.5-1)	Total/NA	Solid	8015B NM	35829
880-19821-5	HA-3 (0-0.5)	Total/NA	Solid	8015B NM	35829
880-19821-6	HA-3 (0.5-1)	Total/NA	Solid	8015B NM	35829
MB 880-35829/1-A	Method Blank	Total/NA	Solid	8015B NM	35829
LCS 880-35829/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35829
LCSD 880-35829/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35829
880-19827-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35829
880-19827-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35829

Analysis Batch: 35985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19821-1	HA-1 (0-0.5)	Total/NA	Solid	8015 NM	
880-19821-2	HA-1 (0.5-1)	Total/NA	Solid	8015 NM	
880-19821-3	HA-2 (0-0.5)	Total/NA	Solid	8015 NM	
880-19821-4	HA-2 (0.5-1)	Total/NA	Solid	8015 NM	
880-19821-5	HA-3 (0-0.5)	Total/NA	Solid	8015 NM	
880-19821-6	HA-3 (0.5-1)	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19821-1	HA-1 (0-0.5)	Soluble	Solid	DI Leach	
880-19821-2	HA-1 (0.5-1)	Soluble	Solid	DI Leach	
880-19821-3	HA-2 (0-0.5)	Soluble	Solid	DI Leach	
880-19821-4	HA-2 (0.5-1)	Soluble	Solid	DI Leach	
880-19821-5	HA-3 (0-0.5)	Soluble	Solid	DI Leach	
880-19821-6	HA-3 (0.5-1)	Soluble	Solid	DI Leach	
MB 880-35683/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35683/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35683/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-19770-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-19770-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
880-19820-A-5-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-19820-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19821-1	HA-1 (0-0.5)	Soluble	Solid	300.0	35683
880-19821-2	HA-1 (0.5-1)	Soluble	Solid	300.0	35683
880-19821-3	HA-2 (0-0.5)	Soluble	Solid	300.0	35683
880-19821-4	HA-2 (0.5-1)	Soluble	Solid	300.0	35683
880-19821-5	HA-3 (0-0.5)	Soluble	Solid	300.0	35683
880-19821-6	HA-3 (0.5-1)	Soluble	Solid	300.0	35683
MB 880-35683/1-A	Method Blank	Soluble	Solid	300.0	35683
LCS 880-35683/2-A	Lab Control Sample	Soluble	Solid	300.0	35683
LCSD 880-35683/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35683
880-19770-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	35683

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

HPLC/IC (Continued)

Analysis Batch: 36005 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19770-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35683
880-19820-A-5-B MS	Matrix Spike	Soluble	Solid	300.0	35683
880-19820-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35683

Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Client Sample ID: HA-1 (0-0.5)

Lab Sample ID: 880-19821-1
Matrix: Solid
Date Collected: 09/29/22 11:00
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 02:33	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36539	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35985	10/03/22 11:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35829	09/30/22 15:02	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35865	10/01/22 15:49	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		20			36005	10/03/22 23:07	CH	EET MID

Client Sample ID: HA-1 (0.5-1)

Lab Sample ID: 880-19821-2
Matrix: Solid
Date Collected: 09/29/22 11:02
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 02:53	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36539	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35985	10/03/22 11:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35829	09/30/22 15:02	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35865	10/01/22 16:11	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		1			36005	10/03/22 23:22	CH	EET MID

Client Sample ID: HA-2 (0-0.5)

Lab Sample ID: 880-19821-3
Matrix: Solid
Date Collected: 09/29/22 11:05
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 03:14	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36539	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35985	10/03/22 11:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35829	09/30/22 15:02	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35865	10/01/22 16:32	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		10			36005	10/03/22 23:26	CH	EET MID

Client Sample ID: HA-2 (0.5-1)

Lab Sample ID: 880-19821-4
Matrix: Solid
Date Collected: 09/29/22 11:07
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 03:34	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36539	10/10/22 10:23	AJ	EET MID

Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Client Sample ID: HA-2 (0.5-1)

Lab Sample ID: 880-19821-4
Matrix: Solid
Date Collected: 09/29/22 11:07
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			35985	10/03/22 11:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35829	09/30/22 15:02	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35865	10/01/22 16:54	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		5			36005	10/03/22 23:31	CH	EET MID

Client Sample ID: HA-3 (0-0.5)

Lab Sample ID: 880-19821-5
Matrix: Solid
Date Collected: 09/29/22 11:10
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 04:56	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36539	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35985	10/03/22 11:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35829	09/30/22 15:02	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35865	10/01/22 17:37	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		5			36005	10/03/22 23:36	CH	EET MID

Client Sample ID: HA-3 (0.5-1)

Lab Sample ID: 880-19821-6
Matrix: Solid
Date Collected: 09/29/22 11:12
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 05:17	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36539	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35985	10/03/22 11:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35829	09/30/22 15:02	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35865	10/01/22 17:58	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		5			36005	10/03/22 23:41	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Job ID: 880-19821-1
Project/Site: Serrano Containment Leak
SDG: Eunice,NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19821-1
SDG: Eunice,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-19821-1	HA-1 (0-0.5)	Solid	09/29/22 11:00	09/29/22 14:35	0 - 0.5
880-19821-2	HA-1 (0.5-1)	Solid	09/29/22 11:02	09/29/22 14:35	0.5 - 1
880-19821-3	HA-2 (0-0.5)	Solid	09/29/22 11:05	09/29/22 14:35	0 - 0.5
880-19821-4	HA-2 (0.5-1)	Solid	09/29/22 11:07	09/29/22 14:35	0.5 - 10
880-19821-5	HA-3 (0-0.5)	Solid	09/29/22 11:10	09/29/22 14:35	0 - 0.5
880-19821-6	HA-3 (0.5-1)	Solid	09/29/22 11:12	09/29/22 14:35	0.5 - 1

Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300 San Antonio TX (210) 509-3334
Midland TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Phoenix, AZ (480) 355-0900
Tampa FL (813) 620-2000 Tallahassee, FL (850) 756-0747 Delray Beach, FL (561) 689-6701
Atlanta GA (770) 449-8800
www.xenco.com

Work Order No: 19821

Page _____ of _____

Project Manager	Kris Williams	Bill to (if different)	ESER
Company Name	Earth Systems	Company Name	
Address	4115 South CR 1297	Address	
City, State ZIP	Odessa, TX 79765	City, State ZIP	
Phone	(432) 638-7333	Email	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level I ☐ Level ☐ PST/US ☐ TRR ☐ Level ☐
Deliverables EDD ☐ ADaPT ☐ Other

Project Name:	Serrano Centinmat Leak	Turn Around	
Project Number	1310	Routine	☒
Project Location	Eunice, NM	Rush	☐
Sampler's Name	Mason Jones	Due Date	5 day
PO #			

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	(Yes) No	
Temperature (°C)	5.3/5.5	Thermometer ID	IR8	
Received Intact	(Yes) No			
Cooler Custody Seals	Yes No (N/A)	Correction Factor	20	
Sample Custody Seals	Yes No (N/A)	Total Containers		

ANALYSIS REQUEST

Preservative Codes

HNO3 HN
H2S04 H2
HCL HL
None NO
NaOH Na
MeOH Me
Zn Acetate+ NaOH Zn

TAT starts the day recevied by the lab if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride (300)	TPH (8015M)	BTEX (8021B)	Sample Comments
HA-1(0-0.5)	S	9/29/22	11:00	0-0.5	1	X	X	X	
HA-1(0.5-1)			11:02	0.5-1		X	X	X	
HA-2(0-0.5)			11:05	0-0.5		X	X	X	
HA-2(0.5-1)			11:07	0.5-1		X	X	X	
HA-3(0-0.5)			11:10	0-0.5		X	X	X	
HA-3(0.5-1)			11:12	0.5-1		X	X	X	

NFE

880-19821 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		9/29/22	2		
3		1438	4		
5			6		

Revised Date101419 Rev 2019 1

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 880-19821-1
SDG Number: Eunice,NM

Login Number: 19821
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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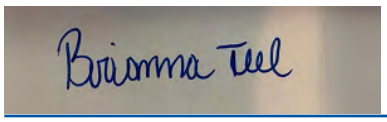
ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-19820-1
Laboratory Sample Delivery Group: Eunice,NM
Client Project/Site: Serrano Containment Leak

For:
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Attn: Kris Williams



Authorized for release by:
10/10/2022 9:58:34 AM

Brianna Teel, Project Manager
(432)704-5440
Brianna.Teel@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Laboratory Job ID: 880-19820-1
SDG: Eunice,NM

Table of Contents

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Job ID: 880-19820-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-19820-1

Receipt
The samples were received on 9/29/2022 2:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-36451 and analytical batch 880-36469 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: Surrogate recovery for the following samples were outside control limits: P-3 (0-0.5) (880-19820-3) and P-5 (0-0.5) (880-19820-5). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3104-A-1-B MS) and (890-3104-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-35819 and analytical batch 880-35738 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-35819 and analytical batch 880-35738 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Client Sample ID: P-1 (0-0.5)

Date Collected: 09/29/22 11:15
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Lab Sample ID: 880-19820-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/08/22 13:34	10/10/22 00:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/08/22 13:34	10/10/22 00:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/08/22 13:34	10/10/22 00:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/08/22 13:34	10/10/22 00:30	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		10/08/22 13:34	10/10/22 00:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/08/22 13:34	10/10/22 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*10/08/22 13:34*	*10/10/22 00:30*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*10/08/22 13:34*	*10/10/22 00:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/03/22 11:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		09/30/22 14:01	10/01/22 00:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/30/22 14:01	10/01/22 00:54	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/30/22 14:01	10/01/22 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*09/30/22 14:01*	*10/01/22 00:54*	*1*
o-Terphenyl	*109*		*70 - 130*	*09/30/22 14:01*	*10/01/22 00:54*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8100**		50.3		mg/Kg			10/03/22 22:28	10

Client Sample ID: P-2 (0-0.5)

Date Collected: 09/29/22 11:17
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Lab Sample ID: 880-19820-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		10/08/22 13:34	10/10/22 00:50	1
Toluene	<0.00198	U	0.00198		mg/Kg		10/08/22 13:34	10/10/22 00:50	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		10/08/22 13:34	10/10/22 00:50	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		10/08/22 13:34	10/10/22 00:50	1
o-Xylene	<0.00198	U *+	0.00198		mg/Kg		10/08/22 13:34	10/10/22 00:50	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		10/08/22 13:34	10/10/22 00:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*10/08/22 13:34*	*10/10/22 00:50*	*1*

Eurofins Midland

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Client Sample ID: P-2 (0-0.5)

Lab Sample ID: 880-19820-2
Matrix: Solid
Date Collected: 09/29/22 11:17
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*10/08/22 13:34*	*10/10/22 00:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			10/03/22 11:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		09/30/22 14:01	10/01/22 01:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/30/22 14:01	10/01/22 01:15	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/30/22 14:01	10/01/22 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*09/30/22 14:01*	*10/01/22 01:15*	*1*
o-Terphenyl	*128*		*70 - 130*	*09/30/22 14:01*	*10/01/22 01:15*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1090**		4.97		mg/Kg			10/03/22 22:33	1

Client Sample ID: P-3 (0-0.5)

Lab Sample ID: 880-19820-3
Matrix: Solid
Date Collected: 09/29/22 11:19
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 01:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 01:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 01:11	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/08/22 13:34	10/10/22 01:11	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		10/08/22 13:34	10/10/22 01:11	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/08/22 13:34	10/10/22 01:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*10/08/22 13:34*	*10/10/22 01:11*	*1*
1,4-Difluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*10/08/22 13:34*	*10/10/22 01:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/03/22 11:45	1

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Client Sample ID: P-3 (0-0.5)

Lab Sample ID: 880-19820-3
Matrix: Solid
Date Collected: 09/29/22 11:19
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		09/30/22 14:01	10/01/22 01:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/30/22 14:01	10/01/22 01:36	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/30/22 14:01	10/01/22 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*09/30/22 14:01*	*10/01/22 01:36*	*1*
o-Terphenyl	*120*		*70 - 130*	*09/30/22 14:01*	*10/01/22 01:36*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**193**		4.96		mg/Kg			10/03/22 22:38	1

Client Sample ID: P-4 (0-0.5)

Lab Sample ID: 880-19820-4
Matrix: Solid
Date Collected: 09/29/22 11:22
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 01:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 01:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 01:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/08/22 13:34	10/10/22 01:31	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		10/08/22 13:34	10/10/22 01:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/08/22 13:34	10/10/22 01:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*10/08/22 13:34*	*10/10/22 01:31*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/08/22 13:34*	*10/10/22 01:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/03/22 11:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		09/30/22 14:01	10/01/22 01:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/30/22 14:01	10/01/22 01:58	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/30/22 14:01	10/01/22 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*09/30/22 14:01*	*10/01/22 01:58*	*1*
o-Terphenyl	*111*		*70 - 130*	*09/30/22 14:01*	*10/01/22 01:58*	*1*

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Client Sample ID: P-4 (0-0.5)

Lab Sample ID: 880-19820-4
Matrix: Solid
Date Collected: 09/29/22 11:22
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3490**		24.8		mg/Kg			10/03/22 22:43	5

Client Sample ID: P-5 (0-0.5)

Lab Sample ID: 880-19820-5
Matrix: Solid
Date Collected: 09/29/22 11:23
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 01:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 01:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/08/22 13:34	10/10/22 01:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/08/22 13:34	10/10/22 01:52	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		10/08/22 13:34	10/10/22 01:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/08/22 13:34	10/10/22 01:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*10/08/22 13:34*	*10/10/22 01:52*	*1*
1,4-Difluorobenzene (Surr)	*66*	*S1-*	*70 - 130*	*10/08/22 13:34*	*10/10/22 01:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/03/22 11:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		09/30/22 14:01	10/01/22 02:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/30/22 14:01	10/01/22 02:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/30/22 14:01	10/01/22 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*09/30/22 14:01*	*10/01/22 02:19*	*1*
o-Terphenyl	*92*		*70 - 130*	*09/30/22 14:01*	*10/01/22 02:19*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3010**		25.0		mg/Kg			10/03/22 22:48	5

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Client Sample ID: P-6 (0-0.5)

Date Collected: 09/29/22 11:25
Date Received: 09/29/22 14:35
Sample Depth: 0 - 0.5

Lab Sample ID: 880-19820-6

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/08/22 13:34	10/10/22 02:12	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/08/22 13:34	10/10/22 02:12	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/08/22 13:34	10/10/22 02:12	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/08/22 13:34	10/10/22 02:12	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		10/08/22 13:34	10/10/22 02:12	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/08/22 13:34	10/10/22 02:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*10/08/22 13:34*	*10/10/22 02:12*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*10/08/22 13:34*	*10/10/22 02:12*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/10/22 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/03/22 11:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 20:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 20:28	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/30/22 15:02	10/01/22 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*09/30/22 15:02*	*10/01/22 20:28*	*1*
o-Terphenyl	*107*		*70 - 130*	*09/30/22 15:02*	*10/01/22 20:28*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5780**		25.1		mg/Kg			10/03/22 23:02	5

Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-19820-1	P-1 (0-0.5)	93	92
880-19820-1 MS	P-1 (0-0.5)	101	90
880-19820-1 MSD	P-1 (0-0.5)	119	93
880-19820-2	P-2 (0-0.5)	115	80
880-19820-3	P-3 (0-0.5)	82	65 S1-
880-19820-4	P-4 (0-0.5)	98	106
880-19820-5	P-5 (0-0.5)	83	66 S1-
880-19820-6	P-6 (0-0.5)	86	101
LCS 880-36451/1-A	Lab Control Sample	91	106
LCSD 880-36451/2-A	Lab Control Sample Dup	109	92
MB 880-36451/5-A	Method Blank	84	85
MB 880-36469/8	Method Blank	86	91

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-19820-1	P-1 (0-0.5)	100	109
880-19820-2	P-2 (0-0.5)	117	128
880-19820-3	P-3 (0-0.5)	115	120
880-19820-4	P-4 (0-0.5)	103	111
880-19820-5	P-5 (0-0.5)	85	92
880-19820-6	P-6 (0-0.5)	97	107
880-19827-A-1-E MS	Matrix Spike	75	78
880-19827-A-1-F MSD	Matrix Spike Duplicate	74	76
890-3104-A-1-B MS	Matrix Spike	69 S1-	61 S1-
890-3104-A-1-C MSD	Matrix Spike Duplicate	71	61 S1-
LCS 880-35819/2-A	Lab Control Sample	106	110
LCS 880-35829/2-A	Lab Control Sample	114	126
LCSD 880-35819/3-A	Lab Control Sample Dup	94	98
LCSD 880-35829/3-A	Lab Control Sample Dup	95	106
MB 880-35819/1-A	Method Blank	108	116
MB 880-35829/1-A	Method Blank	99	114

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36451/5-A
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36451

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/08/22 13:34	10/10/22 00:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/08/22 13:34	10/10/22 00:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*10/08/22 13:34*	*10/10/22 00:08*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*10/08/22 13:34*	*10/10/22 00:08*	*1*

Lab Sample ID: LCS 880-36451/1-A
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36451

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1003		mg/Kg		100	70 - 130
Toluene	0.100	0.08953		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08289		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	0.200	0.1709		mg/Kg		85	70 - 130
o-Xylene	0.100	0.09619		mg/Kg		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-36451/2-A
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 36451

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09694		mg/Kg		97	70 - 130	3	35
Toluene	0.100	0.1039		mg/Kg		104	70 - 130	15	35
Ethylbenzene	0.100	0.1059		mg/Kg		106	70 - 130	24	35
m-Xylene & p-Xylene	0.200	0.2337		mg/Kg		117	70 - 130	31	35
o-Xylene	0.100	0.1348	*+	mg/Kg		135	70 - 130	33	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 880-19820-1 MS
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: P-1 (0-0.5)
Prep Type: Total/NA
Prep Batch: 36451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0998	0.08905		mg/Kg		89	70 - 130
Toluene	<0.00201	U	0.0998	0.08146		mg/Kg		81	70 - 130

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-19820-1 MS
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: P-1 (0-0.5)
Prep Type: Total/NA
Prep Batch: 36451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0998	0.08404		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1659		mg/Kg		83	70 - 130
o-Xylene	<0.00201	U *+	0.0998	0.09154		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 880-19820-1 MSD
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: P-1 (0-0.5)
Prep Type: Total/NA
Prep Batch: 36451

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.07472		mg/Kg		75	70 - 130	18	35
Toluene	<0.00201	U	0.0996	0.08396		mg/Kg		84	70 - 130	3	35
Ethylbenzene	<0.00201	U	0.0996	0.09233		mg/Kg		93	70 - 130	9	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1992		mg/Kg		100	70 - 130	18	35
o-Xylene	<0.00201	U *+	0.0996	0.1100		mg/Kg		110	70 - 130	18	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: MB 880-36469/8
Matrix: Solid
Analysis Batch: 36469

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			10/09/22 13:35	1
Toluene	<0.00200	U	0.00200		mg/Kg			10/09/22 13:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			10/09/22 13:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			10/09/22 13:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			10/09/22 13:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			10/09/22 13:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*10/09/22 13:35*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*		*10/09/22 13:35*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-35819/1-A
Matrix: Solid
Analysis Batch: 35738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/30/22 14:01	09/30/22 19:10	1

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-35819/1-A
Matrix: Solid
Analysis Batch: 35738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/30/22 14:01	09/30/22 19:10	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/30/22 14:01	09/30/22 19:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*09/30/22 14:01*	*09/30/22 19:10*	*1*
o-Terphenyl	*116*		*70 - 130*	*09/30/22 14:01*	*09/30/22 19:10*	*1*

Lab Sample ID: LCS 880-35819/2-A
Matrix: Solid
Analysis Batch: 35738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35819

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1130		mg/Kg		113	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	983.8		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: LCSD 880-35819/3-A
Matrix: Solid
Analysis Batch: 35738

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35819

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	805.1	*1	mg/Kg		81	70 - 130	34	20
Diesel Range Organics (Over C10-C28)			1000	871.5		mg/Kg		87	70 - 130	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: 890-3104-A-1-B MS
Matrix: Solid
Analysis Batch: 35738

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 35819

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	998	887.3		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	563	F1	998	954.4	F1	mg/Kg		39	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*69*	*S1-*	*70 - 130*
o-Terphenyl	*61*	*S1-*	*70 - 130*

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-3104-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 35738 — **Prep Batch: 35819**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	999	976.8		mg/Kg		96	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	563	F1	999	983.3	F1	mg/Kg		42	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*71*		*70 - 130*
o-Terphenyl	*61*	*S1-*	*70 - 130*

Lab Sample ID: MB 880-35829/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 35865 — **Prep Batch: 35829**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 11:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 11:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/30/22 15:02	10/01/22 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*09/30/22 15:02*	*10/01/22 11:52*	*1*
o-Terphenyl	*114*		*70 - 130*	*09/30/22 15:02*	*10/01/22 11:52*	*1*

Lab Sample ID: LCS 880-35829/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 35865 — **Prep Batch: 35829**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	876.7		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1098		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*114*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: LCSD 880-35829/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 35865 — **Prep Batch: 35829**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	981.2		mg/Kg		98	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	907.5		mg/Kg		91	70 - 130	19	20

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-35829/3-A
Matrix: Solid
Analysis Batch: 35865

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35829

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: 880-19827-A-1-E MS
Matrix: Solid
Analysis Batch: 35865

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 35829

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	993.8		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	850.4		mg/Kg		83	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	75		70 - 130
o-Terphenyl	78		70 - 130

Lab Sample ID: 880-19827-A-1-F MSD
Matrix: Solid
Analysis Batch: 35865

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 35829

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	979.4		mg/Kg		96	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	836.8		mg/Kg		82	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	74		70 - 130
o-Terphenyl	76		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35683/1-A
Matrix: Solid
Analysis Batch: 36005

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/03/22 21:25	1

Lab Sample ID: LCS 880-35683/2-A
Matrix: Solid
Analysis Batch: 36005

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.3		mg/Kg		99	90 - 110		

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-35683/3-A
Matrix: Solid
Analysis Batch: 36005

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	268.6		mg/Kg		107	90 - 110	8	20

Lab Sample ID: 880-19820-5 MS
Matrix: Solid
Analysis Batch: 36005

Client Sample ID: P-5 (0-0.5)
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3010		1250	4126		mg/Kg		90	90 - 110

Lab Sample ID: 880-19820-5 MSD
Matrix: Solid
Analysis Batch: 36005

Client Sample ID: P-5 (0-0.5)
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3010		1250	4205		mg/Kg		96	90 - 110	2	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

GC VOA

Prep Batch: 36451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-1	P-1 (0-0.5)	Total/NA	Solid	5035	
880-19820-2	P-2 (0-0.5)	Total/NA	Solid	5035	
880-19820-3	P-3 (0-0.5)	Total/NA	Solid	5035	
880-19820-4	P-4 (0-0.5)	Total/NA	Solid	5035	
880-19820-5	P-5 (0-0.5)	Total/NA	Solid	5035	
880-19820-6	P-6 (0-0.5)	Total/NA	Solid	5035	
MB 880-36451/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36451/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36451/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19820-1 MS	P-1 (0-0.5)	Total/NA	Solid	5035	
880-19820-1 MSD	P-1 (0-0.5)	Total/NA	Solid	5035	

Analysis Batch: 36469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-1	P-1 (0-0.5)	Total/NA	Solid	8021B	36451
880-19820-2	P-2 (0-0.5)	Total/NA	Solid	8021B	36451
880-19820-3	P-3 (0-0.5)	Total/NA	Solid	8021B	36451
880-19820-4	P-4 (0-0.5)	Total/NA	Solid	8021B	36451
880-19820-5	P-5 (0-0.5)	Total/NA	Solid	8021B	36451
880-19820-6	P-6 (0-0.5)	Total/NA	Solid	8021B	36451
MB 880-36451/5-A	Method Blank	Total/NA	Solid	8021B	36451
MB 880-36469/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-36451/1-A	Lab Control Sample	Total/NA	Solid	8021B	36451
LCSD 880-36451/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36451
880-19820-1 MS	P-1 (0-0.5)	Total/NA	Solid	8021B	36451
880-19820-1 MSD	P-1 (0-0.5)	Total/NA	Solid	8021B	36451

Analysis Batch: 36538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-1	P-1 (0-0.5)	Total/NA	Solid	Total BTEX	
880-19820-2	P-2 (0-0.5)	Total/NA	Solid	Total BTEX	
880-19820-3	P-3 (0-0.5)	Total/NA	Solid	Total BTEX	
880-19820-4	P-4 (0-0.5)	Total/NA	Solid	Total BTEX	
880-19820-5	P-5 (0-0.5)	Total/NA	Solid	Total BTEX	
880-19820-6	P-6 (0-0.5)	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-1	P-1 (0-0.5)	Total/NA	Solid	8015B NM	35819
880-19820-2	P-2 (0-0.5)	Total/NA	Solid	8015B NM	35819
880-19820-3	P-3 (0-0.5)	Total/NA	Solid	8015B NM	35819
880-19820-4	P-4 (0-0.5)	Total/NA	Solid	8015B NM	35819
880-19820-5	P-5 (0-0.5)	Total/NA	Solid	8015B NM	35819
MB 880-35819/1-A	Method Blank	Total/NA	Solid	8015B NM	35819
LCS 880-35819/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35819
LCSD 880-35819/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35819
890-3104-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	35819
890-3104-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35819

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

GC Semi VOA

Prep Batch: 35819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-1	P-1 (0-0.5)	Total/NA	Solid	8015NM Prep	
880-19820-2	P-2 (0-0.5)	Total/NA	Solid	8015NM Prep	
880-19820-3	P-3 (0-0.5)	Total/NA	Solid	8015NM Prep	
880-19820-4	P-4 (0-0.5)	Total/NA	Solid	8015NM Prep	
880-19820-5	P-5 (0-0.5)	Total/NA	Solid	8015NM Prep	
MB 880-35819/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35819/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35819/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3104-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3104-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 35829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-6	P-6 (0-0.5)	Total/NA	Solid	8015NM Prep	
MB 880-35829/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35829/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35829/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19827-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19827-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-6	P-6 (0-0.5)	Total/NA	Solid	8015B NM	35829
MB 880-35829/1-A	Method Blank	Total/NA	Solid	8015B NM	35829
LCS 880-35829/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35829
LCSD 880-35829/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35829
880-19827-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35829
880-19827-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35829

Analysis Batch: 35982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-1	P-1 (0-0.5)	Total/NA	Solid	8015 NM	
880-19820-2	P-2 (0-0.5)	Total/NA	Solid	8015 NM	
880-19820-3	P-3 (0-0.5)	Total/NA	Solid	8015 NM	
880-19820-4	P-4 (0-0.5)	Total/NA	Solid	8015 NM	
880-19820-5	P-5 (0-0.5)	Total/NA	Solid	8015 NM	
880-19820-6	P-6 (0-0.5)	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-1	P-1 (0-0.5)	Soluble	Solid	DI Leach	
880-19820-2	P-2 (0-0.5)	Soluble	Solid	DI Leach	
880-19820-3	P-3 (0-0.5)	Soluble	Solid	DI Leach	
880-19820-4	P-4 (0-0.5)	Soluble	Solid	DI Leach	
880-19820-5	P-5 (0-0.5)	Soluble	Solid	DI Leach	
880-19820-6	P-6 (0-0.5)	Soluble	Solid	DI Leach	
MB 880-35683/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35683/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35683/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

HPLC/IC (Continued)

Leach Batch: 35683 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-5 MS	P-5 (0-0.5)	Soluble	Solid	DI Leach	
880-19820-5 MSD	P-5 (0-0.5)	Soluble	Solid	DI Leach	

Analysis Batch: 36005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19820-1	P-1 (0-0.5)	Soluble	Solid	300.0	35683
880-19820-2	P-2 (0-0.5)	Soluble	Solid	300.0	35683
880-19820-3	P-3 (0-0.5)	Soluble	Solid	300.0	35683
880-19820-4	P-4 (0-0.5)	Soluble	Solid	300.0	35683
880-19820-5	P-5 (0-0.5)	Soluble	Solid	300.0	35683
880-19820-6	P-6 (0-0.5)	Soluble	Solid	300.0	35683
MB 880-35683/1-A	Method Blank	Soluble	Solid	300.0	35683
LCS 880-35683/2-A	Lab Control Sample	Soluble	Solid	300.0	35683
LCSD 880-35683/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35683
880-19820-5 MS	P-5 (0-0.5)	Soluble	Solid	300.0	35683
880-19820-5 MSD	P-5 (0-0.5)	Soluble	Solid	300.0	35683

Lab Chronicle

Client: Earth Systems Response and Restoration
Job ID: 880-19820-1
Project/Site: Serrano Containment Leak
SDG: Eunice,NM

Client Sample ID: P-1 (0-0.5)
Lab Sample ID: 880-19820-1
Date Collected: 09/29/22 11:15
Matrix: Solid
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 00:30	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36538	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35982	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35738	10/01/22 00:54	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		10			36005	10/03/22 22:28	CH	EET MID

Client Sample ID: P-2 (0-0.5)
Lab Sample ID: 880-19820-2
Date Collected: 09/29/22 11:17
Matrix: Solid
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 00:50	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36538	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35982	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35738	10/01/22 01:15	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		1			36005	10/03/22 22:33	CH	EET MID

Client Sample ID: P-3 (0-0.5)
Lab Sample ID: 880-19820-3
Date Collected: 09/29/22 11:19
Matrix: Solid
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 01:11	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36538	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35982	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35738	10/01/22 01:36	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		1			36005	10/03/22 22:38	CH	EET MID

Client Sample ID: P-4 (0-0.5)
Lab Sample ID: 880-19820-4
Date Collected: 09/29/22 11:22
Matrix: Solid
Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 01:31	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36538	10/10/22 10:23	AJ	EET MID

Lab Chronicle

Client: Earth Systems Response and Restoration
Job ID: 880-19820-1
Project/Site: Serrano Containment Leak
SDG: Eunice,NM

Client Sample ID: P-4 (0-0.5)

Lab Sample ID: 880-19820-4

Date Collected: 09/29/22 11:22

Matrix: Solid

Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			35982	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35738	10/01/22 01:58	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		5			36005	10/03/22 22:43	CH	EET MID

Client Sample ID: P-5 (0-0.5)

Lab Sample ID: 880-19820-5

Date Collected: 09/29/22 11:23

Matrix: Solid

Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 01:52	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36538	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35982	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35819	09/30/22 14:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35738	10/01/22 02:19	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		5			36005	10/03/22 22:48	CH	EET MID

Client Sample ID: P-6 (0-0.5)

Lab Sample ID: 880-19820-6

Date Collected: 09/29/22 11:25

Matrix: Solid

Date Received: 09/29/22 14:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36451	10/08/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36469	10/10/22 02:12	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36538	10/10/22 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35982	10/03/22 11:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35829	09/30/22 15:02	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35865	10/01/22 20:28	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	35683	09/30/22 11:19	SMC	EET MID
Soluble	Analysis	300.0		5			36005	10/03/22 23:02	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Job ID: 880-19820-1
Project/Site: Serrano Containment Leak
SDG: Eunice,NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-19820-1
SDG: Eunice,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-19820-1	P-1 (0-0.5)	Solid	09/29/22 11:15	09/29/22 14:35	0 - 0.5
880-19820-2	P-2 (0-0.5)	Solid	09/29/22 11:17	09/29/22 14:35	0 - 0.5
880-19820-3	P-3 (0-0.5)	Solid	09/29/22 11:19	09/29/22 14:35	0 - 0.5
880-19820-4	P-4 (0-0.5)	Solid	09/29/22 11:22	09/29/22 14:35	0 - 0.5
880-19820-5	P-5 (0-0.5)	Solid	09/29/22 11:23	09/29/22 14:35	0 - 0.5
880-19820-6	P-6 (0-0.5)	Solid	09/29/22 11:25	09/29/22 14:35	0 - 0.5

Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300 San Antonio TX (210) 509-3334
Midland TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550 Carlsbad NM (575) 988-3199 Phoenix, AZ (480) 355-0900
Tampa FL (813) 620-2000 Tallahassee FL (850) 756-0747 Delray Beach FL (561) 689-6701
Atlanta GA (770) 449-8800
www.xenco.com

Work Order No: 19820

Page _____ of _____

Project Manager	Kris Williams	Bill to (if different)	ESRR
Company Name:	Earth Systems	Company Name	
Address	4115 South CR 1297	Address.	
City, State ZIP	Odessa, TX 79765	City, State ZIP	
Phone	(432) 638-7333 Email		

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level I ☐ Level ☐ PST/US ☐ TRP ☐ Level ☐
Deliverables. EDD ☐ ADaPT ☐ Other

Project Name:	Serrano Containment Leak	Turn Around	
Project Number	1360	Routine ☆	
Project Location	Eunice, NM	Rush ☐	
Sampler's Name	Morgan Jones	Due Date 5 day	
PO #:			

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	(Yes) No	
Temperature (°C)	5.3 | 5.5	Thermometer ID	IR8	
Received Intact:	(Yes) No			
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-.20	
Sample Custody Seals.	Yes No (N/A)	Total Containers.		

ANALYSIS REQUEST

Preservative Codes

HNO3 HN
H2S04 H2
HCL HL
None NO
NaOH Na
MeOH Me
Zn Acetate+ NaOH Zn

TAT starts the day recevied by the lab if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride (300)	TPH (8015m)	BTEX (8021B)	Sample Comments
P-1 (0-0.5)	S	9/29/22	11:15	0-0.5	1	X	X	X	
P-2 (0-0.5)			11:17			X	X	X	
P-3 (0-0.5)			11:19			X	X	X	
P-4 (0-0.5)			11:22			X	X	X	
P-5 (0-0.5)			11:23			X	X	X	
P-6 (0-0.5)			11:25			X	X	X	

NFE

880-19820 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** Hg

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		9/29/22	2		
3		1435	4		
5			6		

Revised Date101419 Rev 2019.1

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 880-19820-1
SDG Number: Eunice,NM

Login Number: 19820
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kris Williams
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 12/12/2022 12:29:56 PM

JOB DESCRIPTION

Serrano Containment Leak
SDG NUMBER 1310

JOB NUMBER

880-22541-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

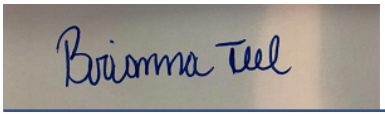
See page two for job notes and contact information.

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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12/12/2022 12:29:56 PM

Authorized for release by
Brianna Teel, Project Manager
Brianna.Teel@et.eurofinsus.com
(432)704-5440

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Laboratory Job ID: 880-22541-1
SDG: 1310

Table of Contents

Definitions/Glossary

Client: Earth Systems Response and Restoration Job ID: 880-22541-1
Project/Site: Serrano Containment Leak SDG: 1310

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Earth Systems Response and Restoration
Job ID: 880-22541-1
Project/Site: Serrano Containment Leak
SDG: 1310

Job ID: 880-22541-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-22541-1

Receipt
The samples were received on 12/9/2022 1:09 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Earth Systems Response and Restoration
Job ID: 880-22541-1
Project/Site: Serrano Containment Leak
SDG: 1310

Client Sample ID: P-7
Lab Sample ID: 880-22541-1
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09
Sample Depth: 0 - 0.5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	121		5.00		mg/Kg			12/10/22 11:25	1

Client Sample ID: P-8
Lab Sample ID: 880-22541-2
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09
Sample Depth: 0 - 0.5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53.3		4.99		mg/Kg			12/10/22 11:31	1

Client Sample ID: P-9
Lab Sample ID: 880-22541-3
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09
Sample Depth: 0 - 0.5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	393		5.00		mg/Kg			12/10/22 11:38	1

Client Sample ID: P-10
Lab Sample ID: 880-22541-4
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09
Sample Depth: 0 - 0.5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	293		4.95		mg/Kg			12/10/22 11:45	1

Client Sample ID: P-11
Lab Sample ID: 880-22541-5
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09
Sample Depth: 0 - 0.5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.6		4.98		mg/Kg			12/10/22 11:51	1

Client Sample ID: P-12
Lab Sample ID: 880-22541-6
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09
Sample Depth: 0 - 0.5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	212		5.05		mg/Kg			12/10/22 11:58	1

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-22541-1
SDG: 1310

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-41433/1-A
Matrix: Solid
Analysis Batch: 41532

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/10/22 08:45	1

Lab Sample ID: LCS 880-41433/2-A
Matrix: Solid
Analysis Batch: 41532

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.9		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-41433/3-A
Matrix: Solid
Analysis Batch: 41532

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	261.5		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-3598-A-6-B MS
Matrix: Solid
Analysis Batch: 41532

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	334		249	580.4		mg/Kg		99	90 - 110		

Lab Sample ID: 890-3598-A-6-C MSD
Matrix: Solid
Analysis Batch: 41532

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	334		249	581.0		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-22541-1
SDG: 1310

HPLC/IC

Leach Batch: 41433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22541-1	P-7	Soluble	Solid	DI Leach	
880-22541-2	P-8	Soluble	Solid	DI Leach	
880-22541-3	P-9	Soluble	Solid	DI Leach	
880-22541-4	P-10	Soluble	Solid	DI Leach	
880-22541-5	P-11	Soluble	Solid	DI Leach	
880-22541-6	P-12	Soluble	Solid	DI Leach	
MB 880-41433/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-41433/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-41433/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3598-A-6-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3598-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 41532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-22541-1	P-7	Soluble	Solid	300.0	41433
880-22541-2	P-8	Soluble	Solid	300.0	41433
880-22541-3	P-9	Soluble	Solid	300.0	41433
880-22541-4	P-10	Soluble	Solid	300.0	41433
880-22541-5	P-11	Soluble	Solid	300.0	41433
880-22541-6	P-12	Soluble	Solid	300.0	41433
MB 880-41433/1-A	Method Blank	Soluble	Solid	300.0	41433
LCS 880-41433/2-A	Lab Control Sample	Soluble	Solid	300.0	41433
LCSD 880-41433/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	41433
890-3598-A-6-B MS	Matrix Spike	Soluble	Solid	300.0	41433
890-3598-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	41433

Lab Chronicle

Client: Earth Systems Response and Restoration
Job ID: 880-22541-1
Project/Site: Serrano Containment Leak
SDG: 1310

Client Sample ID: P-7
Lab Sample ID: 880-22541-1
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	41433	12/09/22 15:00	KS	EET MID
Soluble	Analysis	300.0		1			41532	12/10/22 11:25	CH	EET MID

Client Sample ID: P-8
Lab Sample ID: 880-22541-2
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	41433	12/09/22 15:00	KS	EET MID
Soluble	Analysis	300.0		1			41532	12/10/22 11:31	CH	EET MID

Client Sample ID: P-9
Lab Sample ID: 880-22541-3
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	41433	12/09/22 15:00	KS	EET MID
Soluble	Analysis	300.0		1			41532	12/10/22 11:38	CH	EET MID

Client Sample ID: P-10
Lab Sample ID: 880-22541-4
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	41433	12/09/22 15:00	KS	EET MID
Soluble	Analysis	300.0		1			41532	12/10/22 11:45	CH	EET MID

Client Sample ID: P-11
Lab Sample ID: 880-22541-5
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	41433	12/09/22 15:00	KS	EET MID
Soluble	Analysis	300.0		1			41532	12/10/22 11:51	CH	EET MID

Client Sample ID: P-12
Lab Sample ID: 880-22541-6
Date Collected: 12/09/22 00:00
Matrix: Solid
Date Received: 12/09/22 13:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	41433	12/09/22 15:00	KS	EET MID
Soluble	Analysis	300.0		1			41532	12/10/22 11:58	CH	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Job ID: 880-22541-1
Project/Site: Serrano Containment Leak
SDG: 1310

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

Method Summary

Client: Earth Systems Response and Restoration
Job ID: 880-22541-1
Project/Site: Serrano Containment Leak
SDG: 1310

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-22541-1
SDG: 1310

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-22541-1	P-7	Solid	12/09/22 00:00	12/09/22 13:09	0 - 0.5
880-22541-2	P-8	Solid	12/09/22 00:00	12/09/22 13:09	0 - 0.5
880-22541-3	P-9	Solid	12/09/22 00:00	12/09/22 13:09	0 - 0.5
880-22541-4	P-10	Solid	12/09/22 00:00	12/09/22 13:09	0 - 0.5
880-22541-5	P-11	Solid	12/09/22 00:00	12/09/22 13:09	0 - 0.5
880-22541-6	P-12	Solid	12/09/22 00:00	12/09/22 13:09	0 - 0.5

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Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392 7550 Carlsbad NM (575) 988-3199

Work Order No: 22541

www.xenco.com Page _____ of _____

Project Manager	Tom Carlson	Bill to (if different)	ESRR
Company Name	Earth Systems R&R	Company Name.	
Address.	4115 S CR 1297	Address	
City, State ZIP	Odessa, Texas, 79765	City, State ZIP	
Phone	432-894-6385	Email	Tcarlson@earthsys.net

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project.
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables. EDD ☐ ADaPT ☐ Other

Project Name	Serrano Containment Leak	Turn Around	☐ Routine ☑ Rush
Project Number	1310	Due Date	12/13/2022
Project Location		TAT starts the day received by the lab if received by 4:30pm	
Sampler's Name	Tom Carlson		
PO #			

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID	IR6	
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-0.3	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	3.3	
Total Containers		Corrected Temperature	3.0	

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2SO_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$, $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Chlorides	HOLD	Sample Comments
P-7	S	12/9/2022		0 - 0.5	Grab	1	X		
P-8	S	12/9/2022		0 - 0.5	Grab	1	X		
P-9	S	12/9/2022		0 - 0.5	Grab	1	X		
P-10	S	12/9/2022		0 - 0.5	Grab	1	X		
P-11	S	12/9/2022		0 - 0.5	Grab	1	X		
P-12	S	12/9/2022		0 - 0.5	Grab	1	X		
P-13	S	12/9/2022		0 - 0.5	Grab	1		X	
P-14	S	12/9/2022		0 - 0.5	Grab	1		X	
P-15	S	12/9/2022		0 - 0.5	Grab	1		X	
P-16	S	12/9/2022		0 - 0.5	Grab	1		X	
P-17	S	12/9/2022		0 0.5	Grab	1		X	
P-18	S	12/9/2022		0 - 0.5	Grab	1		X	

880-22541 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1			12/9/22	2		
3			1309	4		
5				6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 880-22541-1
SDG Number: 1310

Login Number: 22541
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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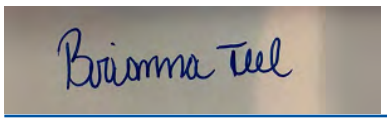
ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-20249-1
Laboratory Sample Delivery Group: Eunice,NM
Client Project/Site: Serrano Containment Leak

For:
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Attn: Kris Williams



Authorized for release by:
10/19/2022 2:03:00 PM

Brianna Teel, Project Manager
(432)704-5440
Brianna.Teel@et.eurofinsus.com

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Laboratory Job ID: 880-20249-1
SDG: Eunice,NM

Table of Contents

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Job ID: 880-20249-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-20249-1

Receipt
The samples were received on 10/12/2022 8:19 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

Receipt Exceptions
The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36769 and analytical batch 880-36709 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Client Sample ID: CS-1 (0.5-1)

Lab Sample ID: 880-20249-1
Matrix: Solid
Date Collected: 10/11/22 12:00
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 05:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 05:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 05:55	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/17/22 09:52	10/19/22 05:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 05:55	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/17/22 09:52	10/19/22 05:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*10/17/22 09:52*	*10/19/22 05:55*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*10/17/22 09:52*	*10/19/22 05:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			10/19/22 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			10/13/22 11:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		10/13/22 08:36	10/13/22 18:17	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		10/13/22 08:36	10/13/22 18:17	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		10/13/22 08:36	10/13/22 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*10/13/22 08:36*	*10/13/22 18:17*	*1*
o-Terphenyl	*94*		*70 - 130*	*10/13/22 08:36*	*10/13/22 18:17*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.4**		4.98		mg/Kg			10/16/22 16:44	1

Client Sample ID: CS-2 (0.5-1)

Lab Sample ID: 880-20249-2
Matrix: Solid
Date Collected: 10/11/22 12:02
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 06:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 06:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 06:16	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/17/22 09:52	10/19/22 06:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 06:16	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/17/22 09:52	10/19/22 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*10/17/22 09:52*	*10/19/22 06:16*	*1*

Eurofins Midland

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Client Sample ID: CS-2 (0.5-1)

Lab Sample ID: 880-20249-2
Matrix: Solid
Date Collected: 10/11/22 12:02
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*10/17/22 09:52*	*10/19/22 06:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/19/22 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			10/13/22 11:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 18:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 18:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*10/13/22 08:36*	*10/13/22 18:39*	*1*
o-Terphenyl	*92*		*70 - 130*	*10/13/22 08:36*	*10/13/22 18:39*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**763**		4.99		mg/Kg			10/16/22 16:52	1

Client Sample ID: CS-3 (0.5-1)

Lab Sample ID: 880-20249-3
Matrix: Solid
Date Collected: 10/11/22 12:04
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 06:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 06:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 06:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/17/22 09:52	10/19/22 06:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 06:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/17/22 09:52	10/19/22 06:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*10/17/22 09:52*	*10/19/22 06:36*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*10/17/22 09:52*	*10/19/22 06:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/19/22 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			10/13/22 11:39	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Client Sample ID: CS-3 (0.5-1)

Lab Sample ID: 880-20249-3
Matrix: Solid
Date Collected: 10/11/22 12:04
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 19:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 19:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*10/13/22 08:36*	*10/13/22 19:01*	*1*
o-Terphenyl	*82*		*70 - 130*	*10/13/22 08:36*	*10/13/22 19:01*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**134**		4.96		mg/Kg			10/16/22 17:00	1

Client Sample ID: CS-4 (0.5-1)

Lab Sample ID: 880-20249-4
Matrix: Solid
Date Collected: 10/11/22 12:06
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 06:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 06:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 06:56	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/17/22 09:52	10/19/22 06:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 06:56	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/17/22 09:52	10/19/22 06:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*10/17/22 09:52*	*10/19/22 06:56*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*10/17/22 09:52*	*10/19/22 06:56*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			10/19/22 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			10/13/22 11:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 19:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 19:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*10/13/22 08:36*	*10/13/22 19:22*	*1*
o-Terphenyl	*111*		*70 - 130*	*10/13/22 08:36*	*10/13/22 19:22*	*1*

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Client Sample ID: CS-4 (0.5-1)

Lab Sample ID: 880-20249-4
Matrix: Solid
Date Collected: 10/11/22 12:06
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.8		4.95		mg/Kg			10/16/22 17:25	1

Client Sample ID: CS-5 (0.5-1)

Lab Sample ID: 880-20249-5
Matrix: Solid
Date Collected: 10/11/22 12:08
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 07:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 07:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 07:17	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/17/22 09:52	10/19/22 07:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 07:17	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/17/22 09:52	10/19/22 07:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*10/17/22 09:52*	*10/19/22 07:17*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*10/17/22 09:52*	*10/19/22 07:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/19/22 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			10/13/22 11:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 19:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 19:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*10/13/22 08:36*	*10/13/22 19:44*	*1*
o-Terphenyl	*109*		*70 - 130*	*10/13/22 08:36*	*10/13/22 19:44*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	338		5.03		mg/Kg			10/16/22 17:34	1

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Client Sample ID: CS-6 (0.5-1)

Lab Sample ID: 880-20249-6
Matrix: Solid
Date Collected: 10/11/22 12:10
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 07:37	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 07:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 07:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/17/22 09:52	10/19/22 07:37	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 07:37	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/17/22 09:52	10/19/22 07:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*10/17/22 09:52*	*10/19/22 07:37*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*10/17/22 09:52*	*10/19/22 07:37*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/19/22 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/13/22 11:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/13/22 08:36	10/13/22 20:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/13/22 08:36	10/13/22 20:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/13/22 08:36	10/13/22 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*10/13/22 08:36*	*10/13/22 20:05*	*1*
o-Terphenyl	*91*		*70 - 130*	*10/13/22 08:36*	*10/13/22 20:05*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**662**		5.04		mg/Kg			10/16/22 18:11	1

Client Sample ID: CS-7 (0.5-1)

Lab Sample ID: 880-20249-7
Matrix: Solid
Date Collected: 10/11/22 12:12
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 07:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 07:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 07:58	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/17/22 09:52	10/19/22 07:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 07:58	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/17/22 09:52	10/19/22 07:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*10/17/22 09:52*	*10/19/22 07:58*	*1*

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Client Sample ID: CS-7 (0.5-1)

Lab Sample ID: 880-20249-7
Matrix: Solid

Date Collected: 10/11/22 12:12
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*10/17/22 09:52*	*10/19/22 07:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			10/19/22 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**53.2**		50.0		mg/Kg			10/13/22 11:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		10/12/22 15:33	10/13/22 04:59	1
Diesel Range Organics (Over C10-C28)	**53.2**		50.0		mg/Kg		10/12/22 15:33	10/13/22 04:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/12/22 15:33	10/13/22 04:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*10/12/22 15:33*	*10/13/22 04:59*	*1*
o-Terphenyl	*128*		*70 - 130*	*10/12/22 15:33*	*10/13/22 04:59*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3180**		25.2		mg/Kg			10/16/22 18:19	5

Client Sample ID: CS-8 (0.5-1)

Lab Sample ID: 880-20249-8
Matrix: Solid

Date Collected: 10/11/22 12:14
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 10:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 10:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 10:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/17/22 09:52	10/19/22 10:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 10:49	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/17/22 09:52	10/19/22 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*10/17/22 09:52*	*10/19/22 10:49*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*10/17/22 09:52*	*10/19/22 10:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/19/22 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			10/13/22 11:39	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Client Sample ID: CS-8 (0.5-1)

Lab Sample ID: 880-20249-8
Matrix: Solid
Date Collected: 10/11/22 12:14
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0		mg/Kg		10/12/22 15:33	10/13/22 05:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/12/22 15:33	10/13/22 05:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/12/22 15:33	10/13/22 05:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*10/12/22 15:33*	*10/13/22 05:19*	*1*
o-Terphenyl	*113*		*70 - 130*	*10/12/22 15:33*	*10/13/22 05:19*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2640**		24.9		mg/Kg			10/16/22 18:28	5

Client Sample ID: CS-9 (0.5-1)

Lab Sample ID: 880-20249-9
Matrix: Solid
Date Collected: 10/11/22 12:16
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 11:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 11:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 11:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/17/22 09:52	10/19/22 11:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 11:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/17/22 09:52	10/19/22 11:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*10/17/22 09:52*	*10/19/22 11:09*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*10/17/22 09:52*	*10/19/22 11:09*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/19/22 11:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/13/22 11:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		10/12/22 15:33	10/13/22 05:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/12/22 15:33	10/13/22 05:41	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/12/22 15:33	10/13/22 05:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*10/12/22 15:33*	*10/13/22 05:41*	*1*
o-Terphenyl	*111*		*70 - 130*	*10/12/22 15:33*	*10/13/22 05:41*	*1*

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Client Sample ID: CS-9 (0.5-1)

Lab Sample ID: 880-20249-9
Matrix: Solid
Date Collected: 10/11/22 12:16
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2240		25.0		mg/Kg			10/16/22 18:36	5

Client Sample ID: CS-10 (0.5-1)

Lab Sample ID: 880-20249-10
Matrix: Solid
Date Collected: 10/11/22 12:18
Date Received: 10/12/22 08:19
Sample Depth: 0.5 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 11:29	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 11:29	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 11:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/17/22 09:52	10/19/22 11:29	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/17/22 09:52	10/19/22 11:29	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/17/22 09:52	10/19/22 11:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*10/17/22 09:52*	*10/19/22 11:29*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*10/17/22 09:52*	*10/19/22 11:29*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/19/22 14:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			10/13/22 11:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		10/12/22 15:33	10/13/22 06:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/12/22 15:33	10/13/22 06:02	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/12/22 15:33	10/13/22 06:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*10/12/22 15:33*	*10/13/22 06:02*	*1*
o-Terphenyl	*115*		*70 - 130*	*10/12/22 15:33*	*10/13/22 06:02*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1500		25.0		mg/Kg			10/16/22 18:44	5

Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-20249-1	CS-1 (0.5-1)	101	107
880-20249-1 MS	CS-1 (0.5-1)	96	101
880-20249-1 MSD	CS-1 (0.5-1)	101	101
880-20249-2	CS-2 (0.5-1)	96	94
880-20249-3	CS-3 (0.5-1)	96	94
880-20249-4	CS-4 (0.5-1)	98	100
880-20249-5	CS-5 (0.5-1)	100	100
880-20249-6	CS-6 (0.5-1)	101	98
880-20249-7	CS-7 (0.5-1)	101	101
880-20249-8	CS-8 (0.5-1)	97	97
880-20249-9	CS-9 (0.5-1)	102	103
880-20249-10	CS-10 (0.5-1)	99	97
LCS 880-37096/1-A	Lab Control Sample	100	99
LCSD 880-37096/2-A	Lab Control Sample Dup	97	102
MB 880-36979/5-A	Method Blank	94	97
MB 880-37096/5-A	Method Blank	93	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-20249-1	CS-1 (0.5-1)	83	94
880-20249-2	CS-2 (0.5-1)	82	92
880-20249-3	CS-3 (0.5-1)	77	82
880-20249-4	CS-4 (0.5-1)	101	111
880-20249-5	CS-5 (0.5-1)	104	109
880-20249-6	CS-6 (0.5-1)	82	91
880-20249-7	CS-7 (0.5-1)	117	128
880-20249-8	CS-8 (0.5-1)	99	113
880-20249-9	CS-9 (0.5-1)	99	111
880-20249-10	CS-10 (0.5-1)	106	115
880-20320-A-21-B MS	Matrix Spike	91	89
880-20320-A-21-C MSD	Matrix Spike Duplicate	102	101
890-3191-A-1-B MS	Matrix Spike	82	83
890-3191-A-1-C MSD	Matrix Spike Duplicate	84	84
LCS 880-36769/2-A	Lab Control Sample	107	122
LCS 880-36816/2-A	Lab Control Sample	110	124
LCSD 880-36769/3-A	Lab Control Sample Dup	94	108
LCSD 880-36816/3-A	Lab Control Sample Dup	107	122
MB 880-36769/1-A	Method Blank	92	107
MB 880-36816/1-A	Method Blank	113	127

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Midland

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36979/5-A
Matrix: Solid
Analysis Batch: 37243

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:36	10/18/22 18:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:36	10/18/22 18:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:36	10/18/22 18:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/14/22 14:36	10/18/22 18:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:36	10/18/22 18:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/14/22 14:36	10/18/22 18:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*10/14/22 14:36*	*10/18/22 18:06*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*10/14/22 14:36*	*10/18/22 18:06*	*1*

Lab Sample ID: MB 880-37096/5-A
Matrix: Solid
Analysis Batch: 37243

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37096

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 05:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 05:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 05:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/17/22 09:52	10/19/22 05:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/17/22 09:52	10/19/22 05:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/17/22 09:52	10/19/22 05:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*10/17/22 09:52*	*10/19/22 05:35*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*10/17/22 09:52*	*10/19/22 05:35*	*1*

Lab Sample ID: LCS 880-37096/1-A
Matrix: Solid
Analysis Batch: 37243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37096

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08503		mg/Kg		85	70 - 130		
Toluene			0.100	0.09021		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.08757		mg/Kg		88	70 - 130		
m-Xylene & p-Xylene			0.200	0.1789		mg/Kg		89	70 - 130		
o-Xylene			0.100	0.08913		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-37096/2-A
Matrix: Solid
Analysis Batch: 37243

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37096

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09279		mg/Kg		93	70 - 130	9	35

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-37096/2-A
Matrix: Solid
Analysis Batch: 37243

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37096

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09214		mg/Kg		92	70 - 130	2	35
Ethylbenzene			0.100	0.08532		mg/Kg		85	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1723		mg/Kg		86	70 - 130	4	35
o-Xylene			0.100	0.08655		mg/Kg		87	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-20249-1 MS
Matrix: Solid
Analysis Batch: 37243

Client Sample ID: CS-1 (0.5-1)
Prep Type: Total/NA
Prep Batch: 37096

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.08890		mg/Kg		89	70 - 130
Toluene	<0.00200	U	0.0996	0.08871		mg/Kg		88	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.08204		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1669		mg/Kg		83	70 - 130
o-Xylene	<0.00200	U	0.0996	0.08227		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-20249-1 MSD
Matrix: Solid
Analysis Batch: 37243

Client Sample ID: CS-1 (0.5-1)
Prep Type: Total/NA
Prep Batch: 37096

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.08738		mg/Kg		87	70 - 130	2	35
Toluene	<0.00200	U	0.0994	0.09198		mg/Kg		91	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.0994	0.08614		mg/Kg		86	70 - 130	5	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1761		mg/Kg		87	70 - 130	5	35
o-Xylene	<0.00200	U	0.0994	0.08715		mg/Kg		86	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-36769/1-A
Matrix: Solid
Analysis Batch: 36709

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/12/22 15:33	10/12/22 21:12	1

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-36769/1-A
Matrix: Solid
Analysis Batch: 36709

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/12/22 15:33	10/12/22 21:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/12/22 15:33	10/12/22 21:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*10/12/22 15:33*	*10/12/22 21:12*	*1*
o-Terphenyl	*107*		*70 - 130*	*10/12/22 15:33*	*10/12/22 21:12*	*1*

Lab Sample ID: LCS 880-36769/2-A
Matrix: Solid
Analysis Batch: 36709

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36769

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1168		mg/Kg		117	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1102		mg/Kg		110	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*122*		*70 - 130*

Lab Sample ID: LCSD 880-36769/3-A
Matrix: Solid
Analysis Batch: 36709

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 36769

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	912.0	*1	mg/Kg		91	70 - 130	25	20
Diesel Range Organics (Over C10-C28)	1000	1006		mg/Kg		101	70 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: 890-3191-A-1-B MS
Matrix: Solid
Analysis Batch: 36709

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 36769

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	998	990.0		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	998	932.7		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*83*		*70 - 130*

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-3191-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 36709 — **Prep Batch: 36769**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	998	1048		mg/Kg		102	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.8	U	998	964.2		mg/Kg		95	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Lab Sample ID: MB 880-36816/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 36806 — **Prep Batch: 36816**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 11:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 11:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/13/22 08:36	10/13/22 11:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*10/13/22 08:36*	*10/13/22 11:31*	*1*
o-Terphenyl	*127*		*70 - 130*	*10/13/22 08:36*	*10/13/22 11:31*	*1*

Lab Sample ID: LCS 880-36816/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 36806 — **Prep Batch: 36816**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1072		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1024		mg/Kg		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*110*		*70 - 130*
o-Terphenyl	*124*		*70 - 130*

Lab Sample ID: LCSD 880-36816/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 36806 — **Prep Batch: 36816**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1019		mg/Kg		102	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	1030		mg/Kg		103	70 - 130	1	20

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-36816/3-A
Matrix: Solid
Analysis Batch: 36806

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 36816

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	122		70 - 130

Lab Sample ID: 880-20320-A-21-B MS
Matrix: Solid
Analysis Batch: 36806

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 36816

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	829.0		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	615		998	1357		mg/Kg		74	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 880-20320-A-21-C MSD
Matrix: Solid
Analysis Batch: 36806

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 36816

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	914.7		mg/Kg		89	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	615		998	1536		mg/Kg		92	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	101		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36752/1-A
Matrix: Solid
Analysis Batch: 37025

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/16/22 13:36	1

Lab Sample ID: LCS 880-36752/2-A
Matrix: Solid
Analysis Batch: 37025

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	240.0		mg/Kg		96	90 - 110

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-36752/3-A
Matrix: Solid
Analysis Batch: 37025

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	245.6		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 880-20249-3 MS
Matrix: Solid
Analysis Batch: 37025

Client Sample ID: CS-3 (0.5-1)
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	134		248	385.1		mg/Kg		101	90 - 110

Lab Sample ID: 880-20249-3 MSD
Matrix: Solid
Analysis Batch: 37025

Client Sample ID: CS-3 (0.5-1)
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	134		248	383.6		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

GC VOA

Prep Batch: 36979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36979/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 37096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-1	CS-1 (0.5-1)	Total/NA	Solid	5035	
880-20249-2	CS-2 (0.5-1)	Total/NA	Solid	5035	
880-20249-3	CS-3 (0.5-1)	Total/NA	Solid	5035	
880-20249-4	CS-4 (0.5-1)	Total/NA	Solid	5035	
880-20249-5	CS-5 (0.5-1)	Total/NA	Solid	5035	
880-20249-6	CS-6 (0.5-1)	Total/NA	Solid	5035	
880-20249-7	CS-7 (0.5-1)	Total/NA	Solid	5035	
880-20249-8	CS-8 (0.5-1)	Total/NA	Solid	5035	
880-20249-9	CS-9 (0.5-1)	Total/NA	Solid	5035	
880-20249-10	CS-10 (0.5-1)	Total/NA	Solid	5035	
MB 880-37096/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-37096/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-37096/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20249-1 MS	CS-1 (0.5-1)	Total/NA	Solid	5035	
880-20249-1 MSD	CS-1 (0.5-1)	Total/NA	Solid	5035	

Analysis Batch: 37243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-1	CS-1 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-2	CS-2 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-3	CS-3 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-4	CS-4 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-5	CS-5 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-6	CS-6 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-7	CS-7 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-8	CS-8 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-9	CS-9 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-10	CS-10 (0.5-1)	Total/NA	Solid	8021B	37096
MB 880-36979/5-A	Method Blank	Total/NA	Solid	8021B	36979
MB 880-37096/5-A	Method Blank	Total/NA	Solid	8021B	37096
LCS 880-37096/1-A	Lab Control Sample	Total/NA	Solid	8021B	37096
LCSD 880-37096/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	37096
880-20249-1 MS	CS-1 (0.5-1)	Total/NA	Solid	8021B	37096
880-20249-1 MSD	CS-1 (0.5-1)	Total/NA	Solid	8021B	37096

Analysis Batch: 37309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-1	CS-1 (0.5-1)	Total/NA	Solid	Total BTEX	
880-20249-2	CS-2 (0.5-1)	Total/NA	Solid	Total BTEX	
880-20249-3	CS-3 (0.5-1)	Total/NA	Solid	Total BTEX	
880-20249-4	CS-4 (0.5-1)	Total/NA	Solid	Total BTEX	
880-20249-5	CS-5 (0.5-1)	Total/NA	Solid	Total BTEX	
880-20249-6	CS-6 (0.5-1)	Total/NA	Solid	Total BTEX	
880-20249-7	CS-7 (0.5-1)	Total/NA	Solid	Total BTEX	
880-20249-8	CS-8 (0.5-1)	Total/NA	Solid	Total BTEX	
880-20249-9	CS-9 (0.5-1)	Total/NA	Solid	Total BTEX	
880-20249-10	CS-10 (0.5-1)	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

GC Semi VOA

Analysis Batch: 36709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-7	CS-7 (0.5-1)	Total/NA	Solid	8015B NM	36769
880-20249-8	CS-8 (0.5-1)	Total/NA	Solid	8015B NM	36769
880-20249-9	CS-9 (0.5-1)	Total/NA	Solid	8015B NM	36769
880-20249-10	CS-10 (0.5-1)	Total/NA	Solid	8015B NM	36769
MB 880-36769/1-A	Method Blank	Total/NA	Solid	8015B NM	36769
LCS 880-36769/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36769
LCSD 880-36769/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36769
890-3191-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	36769
890-3191-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36769

Prep Batch: 36769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-7	CS-7 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-20249-8	CS-8 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-20249-9	CS-9 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-20249-10	CS-10 (0.5-1)	Total/NA	Solid	8015NM Prep	
MB 880-36769/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36769/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36769/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3191-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3191-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-1	CS-1 (0.5-1)	Total/NA	Solid	8015B NM	36816
880-20249-2	CS-2 (0.5-1)	Total/NA	Solid	8015B NM	36816
880-20249-3	CS-3 (0.5-1)	Total/NA	Solid	8015B NM	36816
880-20249-4	CS-4 (0.5-1)	Total/NA	Solid	8015B NM	36816
880-20249-5	CS-5 (0.5-1)	Total/NA	Solid	8015B NM	36816
880-20249-6	CS-6 (0.5-1)	Total/NA	Solid	8015B NM	36816
MB 880-36816/1-A	Method Blank	Total/NA	Solid	8015B NM	36816
LCS 880-36816/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36816
LCSD 880-36816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36816
880-20320-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	36816
880-20320-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36816

Prep Batch: 36816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-1	CS-1 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-20249-2	CS-2 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-20249-3	CS-3 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-20249-4	CS-4 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-20249-5	CS-5 (0.5-1)	Total/NA	Solid	8015NM Prep	
880-20249-6	CS-6 (0.5-1)	Total/NA	Solid	8015NM Prep	
MB 880-36816/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36816/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-20320-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-20320-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

GC Semi VOA

Analysis Batch: 36871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-1	CS-1 (0.5-1)	Total/NA	Solid	8015 NM	
880-20249-2	CS-2 (0.5-1)	Total/NA	Solid	8015 NM	
880-20249-3	CS-3 (0.5-1)	Total/NA	Solid	8015 NM	
880-20249-4	CS-4 (0.5-1)	Total/NA	Solid	8015 NM	
880-20249-5	CS-5 (0.5-1)	Total/NA	Solid	8015 NM	
880-20249-6	CS-6 (0.5-1)	Total/NA	Solid	8015 NM	
880-20249-7	CS-7 (0.5-1)	Total/NA	Solid	8015 NM	
880-20249-8	CS-8 (0.5-1)	Total/NA	Solid	8015 NM	
880-20249-9	CS-9 (0.5-1)	Total/NA	Solid	8015 NM	
880-20249-10	CS-10 (0.5-1)	Total/NA	Solid	8015 NM	

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Leach Batch: 36752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-1	CS-1 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-2	CS-2 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-3	CS-3 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-4	CS-4 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-5	CS-5 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-6	CS-6 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-7	CS-7 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-8	CS-8 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-9	CS-9 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-10	CS-10 (0.5-1)	Soluble	Solid	DI Leach	
MB 880-36752/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36752/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36752/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-20249-3 MS	CS-3 (0.5-1)	Soluble	Solid	DI Leach	
880-20249-3 MSD	CS-3 (0.5-1)	Soluble	Solid	DI Leach	

Analysis Batch: 37025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20249-1	CS-1 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-2	CS-2 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-3	CS-3 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-4	CS-4 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-5	CS-5 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-6	CS-6 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-7	CS-7 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-8	CS-8 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-9	CS-9 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-10	CS-10 (0.5-1)	Soluble	Solid	300.0	36752
MB 880-36752/1-A	Method Blank	Soluble	Solid	300.0	36752
LCS 880-36752/2-A	Lab Control Sample	Soluble	Solid	300.0	36752
LCSD 880-36752/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36752
880-20249-3 MS	CS-3 (0.5-1)	Soluble	Solid	300.0	36752
880-20249-3 MSD	CS-3 (0.5-1)	Soluble	Solid	300.0	36752

Lab Chronicle

Client: Earth Systems Response and Restoration
Job ID: 880-20249-1
Project/Site: Serrano Containment Leak
SDG: Eunice,NM

Client Sample ID: CS-1 (0.5-1)
Lab Sample ID: 880-20249-1
Date Collected: 10/11/22 12:00
Matrix: Solid
Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 05:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	36816	10/13/22 08:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36806	10/13/22 18:17	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		1			37025	10/16/22 16:44	CH	EET MID

Client Sample ID: CS-2 (0.5-1)
Lab Sample ID: 880-20249-2
Date Collected: 10/11/22 12:02
Matrix: Solid
Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 06:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36816	10/13/22 08:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36806	10/13/22 18:39	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		1			37025	10/16/22 16:52	CH	EET MID

Client Sample ID: CS-3 (0.5-1)
Lab Sample ID: 880-20249-3
Date Collected: 10/11/22 12:04
Matrix: Solid
Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 06:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36816	10/13/22 08:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36806	10/13/22 19:01	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		1			37025	10/16/22 17:00	CH	EET MID

Client Sample ID: CS-4 (0.5-1)
Lab Sample ID: 880-20249-4
Date Collected: 10/11/22 12:06
Matrix: Solid
Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 06:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 11:35	SM	EET MID

Lab Chronicle

Client: Earth Systems Response and Restoration
Job ID: 880-20249-1
Project/Site: Serrano Containment Leak
SDG: Eunice,NM

Client Sample ID: CS-4 (0.5-1)

Lab Sample ID: 880-20249-4

Date Collected: 10/11/22 12:06

Matrix: Solid

Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36816	10/13/22 08:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36806	10/13/22 19:22	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		1			37025	10/16/22 17:25	CH	EET MID

Client Sample ID: CS-5 (0.5-1)

Lab Sample ID: 880-20249-5

Date Collected: 10/11/22 12:08

Matrix: Solid

Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 07:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36816	10/13/22 08:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36806	10/13/22 19:44	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		1			37025	10/16/22 17:34	CH	EET MID

Client Sample ID: CS-6 (0.5-1)

Lab Sample ID: 880-20249-6

Date Collected: 10/11/22 12:10

Matrix: Solid

Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 07:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36816	10/13/22 08:36	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36806	10/13/22 20:05	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		1			37025	10/16/22 18:11	CH	EET MID

Client Sample ID: CS-7 (0.5-1)

Lab Sample ID: 880-20249-7

Date Collected: 10/11/22 12:12

Matrix: Solid

Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 07:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36769	10/12/22 15:33	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36709	10/13/22 04:59	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Earth Systems Response and Restoration
Job ID: 880-20249-1
Project/Site: Serrano Containment Leak
SDG: Eunice,NM

Client Sample ID: CS-7 (0.5-1)
Lab Sample ID: 880-20249-7
Date Collected: 10/11/22 12:12
Matrix: Solid
Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		5			37025	10/16/22 18:19	CH	EET MID

Client Sample ID: CS-8 (0.5-1)
Lab Sample ID: 880-20249-8
Date Collected: 10/11/22 12:14
Matrix: Solid
Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 10:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36769	10/12/22 15:33	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36709	10/13/22 05:19	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		5			37025	10/16/22 18:28	CH	EET MID

Client Sample ID: CS-9 (0.5-1)
Lab Sample ID: 880-20249-9
Date Collected: 10/11/22 12:16
Matrix: Solid
Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 11:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36769	10/12/22 15:33	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36709	10/13/22 05:41	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		5			37025	10/16/22 18:36	CH	EET MID

Client Sample ID: CS-10 (0.5-1)
Lab Sample ID: 880-20249-10
Date Collected: 10/11/22 12:18
Matrix: Solid
Date Received: 10/12/22 08:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	37096	10/17/22 09:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37243	10/19/22 11:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37309	10/19/22 14:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			36871	10/13/22 11:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36769	10/12/22 15:33	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36709	10/13/22 06:02	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36752	10/12/22 11:08	SMC	EET MID
Soluble	Analysis	300.0		5			37025	10/16/22 18:44	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: Earth Systems Response and Restoration
Job ID: 880-20249-1
Project/Site: Serrano Containment Leak
SDG: Eunice,NM

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Job ID: 880-20249-1
Project/Site: Serrano Containment Leak
SDG: Eunice,NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Serrano Containment Leak

Job ID: 880-20249-1
SDG: Eunice,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-20249-1	CS-1 (0.5-1)	Solid	10/11/22 12:00	10/12/22 08:19	0.5 - 1
880-20249-2	CS-2 (0.5-1)	Solid	10/11/22 12:02	10/12/22 08:19	0.5 - 1
880-20249-3	CS-3 (0.5-1)	Solid	10/11/22 12:04	10/12/22 08:19	0.5 - 1
880-20249-4	CS-4 (0.5-1)	Solid	10/11/22 12:06	10/12/22 08:19	0.5 - 1
880-20249-5	CS-5 (0.5-1)	Solid	10/11/22 12:08	10/12/22 08:19	0.5 - 1
880-20249-6	CS-6 (0.5-1)	Solid	10/11/22 12:10	10/12/22 08:19	0.5 - 1
880-20249-7	CS-7 (0.5-1)	Solid	10/11/22 12:12	10/12/22 08:19	0.5 - 1
880-20249-8	CS-8 (0.5-1)	Solid	10/11/22 12:14	10/12/22 08:19	0.5 - 1
880-20249-9	CS-9 (0.5-1)	Solid	10/11/22 12:16	10/12/22 08:19	0.5 - 1
880-20249-10	CS-10 (0.5-1)	Solid	10/11/22 12:18	10/12/22 08:19	0.5 - 1

Chain of Custody

XENCO LABORATORIES

Houston TX (281) 240-4200 Dallas TX (214) 902-0300 San Antonio TX (210) 509-3334
Midland TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Phoenix AZ (480) 355-0900
Tampa FL (813) 620-2000, Tallahassee FL (850) 756-0747 Delray Beach FL (561) 689-6701
Atlanta GA (770) 449-8800

Work Order No: 20249

www.xenco.com Page _____ of _____

Project Manager	Kris Williams	Bill to: (if different)	ESRR
Company Name	Earth Systems	Company Name	
Address	4115 South CR 1297	Address	
City, State ZIP	Odessa, TX 79765	City, State ZIP	
Phone	(432) 638-7333	Email	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level I ☐ Level ☐ PST/US ☐ TRP ☐ Level ☐
Deliverables EDD ☐ ADaPT ☐ Other:

Project Name:	Serrano Containment Leak	Turn Around	
Project Number:	1310	Routine	☐
Project Location	Eunice, NM	Rush	☒
Sampler's Name	Mason Jones	Due Date	
PO #			

SAMPLE RECEIPT			
Temperature (°C)	Temp Blank: Yes No	Wet Ice: Yes No	
	5.2 / 5.4	Thermometer ID	IR8
Received Intact:	Yes No		
Cooler Custody Seals	Yes No N/A	Correction Factor	.20
Sample Custody Seals.	Yes No N/A	Total Containers	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride (300)	TPH (8015M)	BTEX (8021B)
CS-1 (0.5-1)	S	10/11/22	12:00	0.5-1	2	X	X	X
CS-2 (0.5-1)			12:02			X	X	X
CS-3 (0.5-1)			12:04			X	X	X
CS-4 (0.5-1)			12:06			X	X	X
CS-5 (0.5-1)			12:08			X	X	X
CS-6 (0.5-1)			12:10			X	X	X
CS-7 (0.5-1)			12:12			X	X	X
CS-8 (0.5-1)			12:14			X	X	X
CS-9 (0.5-1)			12:16			X	X	X
CS-10 (0.5-1)			12:18			X	X	X

Preservative Codes

HNO3 HN
H2S04 H2
HCL HL
None. NO
NaOH Na
MeOH Me
Zn Acetate+ NaOH Zn

TAT starts the day recevied by the lab if received by 4 30pm

Sample Comments

880-20249 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** Hg

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 Mason Jones		10/12/22 819	2		
3			4		
5			6		

Revised Date101419 Rev 2019.1

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 880-20249-1
SDG Number: Eunice,NM

Login Number: 20249
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Kristopher Williams

From: Albert Ochoa <albert.ochoa@goodnightmidstream.com>
Sent: Thursday, December 1, 2022 5:22 PM
To: Kristopher Williams; Mason Jones
Subject: Fwd: The Oil Conservation Division (OCD) has rejected the application, Application ID: 156602

I got this from the OCD on Serrano. May need to do some additional sampling.

Sent from my iPhone

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Thursday, December 1, 2022 5:14 PM
To: Albert Ochoa <albert.ochoa@goodnightmidstream.com>
Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 156602

To whom it may concern (c/o Albert Ochoa for GOODNIGHT MIDSTREAM PERMIAN, LLC),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2226738084,
for the following reasons:

- **Closure Report Denied. Release has not been sufficiently laterally delineated. Sidewall and/or lateral samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release on pad, regardless of depth to groundwater. Please resubmit a revised Closure Report to the OCD portal by January 6, 2023.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 156602.
Please review and make the required correction(s) prior to resubmitting.
If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Jennifer Nobui
Environmental Specialist-Advanced
505-470-3407
Jennifer.Nobui@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2226738084
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>125 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2226738084
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Albert Ochoa Title: HSE Representative

Signature: Albert Ochoa Date: 12/15/2022

email: albert.ochoa@goodnightmidstream.com Telephone: (432) 242-6629

OCD Only

Received by: Jocelyn Harimon Date: 12/15/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2226738084
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Albert Ochoa Title: HSE Representative

Signature: Albert Ochoa Date: 12/15/2022

email: albert.ochoa@goodnightmidstream.com Telephone: (432) 242-6629

OCD Only

Received by: Jocelyn Harimon Date: 12/15/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 01/11/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 167201

CONDITIONS

Operator: GOODNIGHT MIDSTREAM PERMIAN, LLC 5910 North Central Expressway Dallas, TX 75206	OGRID: 372311
	Action Number: 167201
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 NMAC when completing P&A.	1/11/2023